

# **Audit**



# **Report**

OFFICE OF THE INSPECTOR GENERAL

**ADMINISTRATIVE LEAD TIME AT  
DOD INVENTORY CONTROL POINT**

Report No. 95-238

June 15, 1995

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**Department of Defense**

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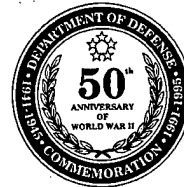
### **Acronyms**

ASO  
DLA  
TACOM

Aviation Supply Office  
Defense Logistics Agency  
Tank-automotive Command



**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
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June 15, 1995

**MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)  
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL  
MANAGEMENT)  
ASSISTANT SECRETARY OF THE AIR FORCE  
(FINANCIAL MANAGEMENT AND COMPTROLLER)  
DIRECTOR, DEFENSE LOGISTICS AGENCY  
AUDITOR GENERAL, DEPARTMENT OF THE ARMY**

**SUBJECT: Audit Report on Administrative Lead Time at DoD Inventory Control  
Points (Report No. 95-238)**

We are providing this audit report for review and comment. This report is the summary report of a series of audit reports on the subject. Management comments on a draft of this report were considered in preparing the final report.

DoD Directive 7650.3 requires that all audit recommendations and potential monetary benefits be resolved promptly. Navy and Defense Logistics Agency comments were responsive. The Under Secretary of Defense (Comptroller) did not comment on a draft of this report, but actions taken and discussed with us are responsive to the recommendations directed to that office. We request that the Army provide additional comments on Recommendation 2.a.(2). and the Air Force provide additional comments on Recommendations 2.a. and 2.b. We request that management provide the comments by August 15, 1995.

We appreciate the courtesies extended to the audit staff. Questions on this audit should be directed to Mr. Wayne K. Million, Audit Program Director, at (703) 604-9312 (DSN 664-9312) or Mr. Henry P. Hoffman, Audit Project Manager, at (703) 604-9269 (DSN 664-9269). See Appendix G for the report distribution. The audit team members are listed inside the back cover.

*David K. Steensma*

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Deputy Assistant Inspector General  
for Auditing

## Office of the Inspector General, DoD

Report No. 95-238  
(Project No. 3CD-0043.03)

June 15, 1995

### Administrative Lead Time at DoD Inventory Control Points

#### Executive Summary

**Introduction.** This report is the summary of a series of reports on administrative lead time. This report addresses the time required for the administrative lead time process for spare parts at 16 DoD inventory control points. Administrative lead time is the time from the identification of the item reorder requirement to the award of the contract. Reducing administrative lead time decreases required inventory and inventory holding costs, thus freeing DoD funds for other uses. The DoD inventory for spare parts was \$77.5 billion as of September 30, 1993. DoD inventory control points planned to procure an estimated \$56 billion of spare parts from FYs 1993 through 1997.

**Audit Objectives.** The primary audit objective was to determine whether measures were in place to monitor and, when appropriate, to reduce administrative lead time for spare parts contracts. We also evaluated the adequacy of the DoD Components' management control programs as they applied to administrative lead time.

**Audit Results.** Some DoD inventory control points were more efficient than others in awarding contracts for spare parts. The estimated average time required to award contracts ranged from 183 to 523 days for contracts \$25,000 and greater, as shown in the table on the facing page. The contracts reviewed during the audit were awarded between July 1, 1992, and June 30, 1993. Several activities have indicated that improvements in reducing administrative lead times have already been accomplished since the time of our review.

The DoD inventory control points can reduce administrative lead time and improve readiness by sharing with one another their best ideas and practices for reducing administrative lead time and by establishing performance measures. We estimate that implementation of the recommendations could result in cost reductions of as much as \$2 billion for FYs 1996 through 2001 by reducing DoD inventory and the cost to maintain inventory needed to cover administrative lead time. See Part I for a discussion of details. See Appendix E for a summary of the potential benefits resulting from the audit.

Management controls at Defense Logistics Agency inventory control points were adequate. Management controls at some Military Department inventory control points could be improved. We identified a material weakness relating to keeping inventory control point management aware of problems with administrative lead time. See Appendix A for a discussion of our review of the DoD Components' management control programs and Part I for details of the weakness identified.

**Summary of Recommendations.** We recommend that the Under Secretary of Defense (Comptroller) initiate appropriate adjustments during the budget review process to reflect reduced administrative lead time. Also, we recommend that the DoD Components establish a performance measurement system and goals for administrative lead time. In addition, we recommend that the DoD Components include administrative lead time as an assessable unit in their management control programs.

**Management Comments.** The Under Secretary of Defense (Comptroller) did not provide written comments. However, the DoD FY 1996/1997 President's Budget includes lead time reductions for supply management of \$1.5 billion for the Army, the Air Force, and the Defense Logistics Agency.

The Navy, the Air Force, and the Defense Logistics Agency concurred with the need to implement performance measures for the administrative lead time process, include administrative lead time as an assessable unit within their management control programs, and increase use of automated contracts to dramatically reduce administrative lead time. However, the Army nonconcurred with monitoring administrative lead time from the requirement notice, stating that cycle times would be overstated and result in inventory being procured above requirements.

The Assistant Deputy Under Secretary of Defense (Materiel and Distribution Management) and DoD Components nonconcurred with the potential monetary benefits resulting from reduced administrative lead time. A summary of managements comments is at the end of the finding in Part I. The complete text of managements comments is in Part III.

**Audit Response.** DoD Regulation 4140.1-R, "DoD Materiel Management Regulation," defines administrative lead time as beginning when a requirement is identified. In a May 27, 1994, policy memorandum, the Joint Logistics Systems Center also defined administrative lead time as beginning when an item reaches its reorder point and a buy is recommended or an automatic buy is generated. On June 16, 1994, in the Army response to the Joint Logistics Systems Center policy memorandum, the Army agreed with this definition. We, therefore, request the Army reconsider its response to the draft report and provide comments to the final report by August 15, 1995.

The actions taken by the Navy and the Defense Logistics Agency are responsive to the intent of the recommendation. Accordingly, additional comments are not required from the Navy or the Defense Logistics Agency in response to the recommendations.

The actions taken by the Air Force to implement performance measures for the administrative lead time process and to include administrative lead time as an assessable unit in its management control program do not address the time period of administrative lead time before the purchase request. We maintain the entire administrative lead time process needs to have performance measures, as well as be included as an assessable unit in the Air Force management control program. We request the Air Force provide additional comments on the final report by August 15, 1995.

The responses agree there is a need to reduce administrative lead time but criticize various aspects of calculating the potential monetary benefits. The responses did not provide convincing arguments or an alternative accepted methodology. Also, personnel from the Logistics Management Institute who reviewed the calculations showed they lacked credibility in the area. The methodology used to calculate potential monetary benefits is valid and based on the Joint Logistics Systems Center methodology. However, other factors, such as economic order quantities and adjustments to the reorder points may cause the actual potential monetary benefits to be less than projected. Because the Under Secretary of Defense (Comptroller) has already reduced the DoD FY 1996/1997 President's Budget by \$1.5 billion for the Army, the Air Force, and the Defense Logistics Agency for supply management to reflect reduced costs from reductions in overall acquisition lead time, we believe that no further adjustments are required at this time. However, the Under Secretary of Defense (Comptroller) and the Navy are still determining the Navy adjustment. We believe that the budget adjustment for the Navy should be commensurate with the adjustments already made to the other DoD Components and request that the budget adjustment data be provided to us for further evaluation when finalized.

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## **Part I - Audit Results**

## Audit Results

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### Introduction

This report summarizes the results of a series of reports on administrative lead time for contracts at DoD inventory control points. DoD inventory control points buy spare parts for the DoD supply system. This report addresses the administrative lead time for spare parts contracts at 16 DoD inventory control points.

Administrative lead time is a major element in determining inventory levels. Reductions in administrative lead time decrease inventory levels and associated inventory holding costs, thus freeing DoD funds for other uses.

The DoD inventory for spare parts was \$77.5 billion as of September 30, 1993. DoD inventory control points planned to procure an estimated \$56 billion of spare parts from FYs 1993 through 1997.

### Audit Background

**Performance Measures to Assess Program Results.** Public Law 103-62, "Government Performance Results Acts of 1993," August 3, 1993, provides for the establishment of strategic planning and performance measurement in the Federal Government. To effectively improve program efficiency and effectiveness, program goals must be established and adequate information on program performance must be available.

**Materiel Management by DoD Inventory Control Points.** DoD inventory control points have primary responsibility for materiel management within the DoD Components. To properly manage materiel such as spare parts, the DoD inventory control points forecast when to reorder spare parts to meet the needs of the users of those spare parts.

**Regulation on Administrative Lead Time.** DoD Regulation 4140.1-R, "DoD Materiel Management Regulation," January 1993, which supersedes DoD Instruction 4140.55, "Procurement Lead Time for Secondary Items," December 1985, establishes policy, assigns responsibility, and provides guidelines for defining and developing administrative lead time.

**Administrative Lead Time as a Management Tool.** Administrative lead time is one factor used to forecast when to reorder inventoried items. Administrative lead time is defined by DoD Regulation 4140.1-R as the period from the item reorder requirement (the time at which the need to order additional spare parts becomes known) until the contract is awarded.

**Administrative Lead Time Process.** Administrative lead time is composed of various segments of time. During each segment of time, discrete actions are required by different people and offices, such as item managers, contracting officers, and attorneys. See Appendix C for details of the administrative lead time process.



**Effect of Administrative Lead Time on Inventory.** Inventory levels decrease with the daily use of spare parts. For every day of administrative lead time, sufficient inventory must be available to satisfy daily use of spare parts.

**Effect of Administrative Lead Time on Inventory Safety Levels.** Inventory safety levels are the quantity of inventory on hand to allow for fluctuations in estimated lead time and estimated daily use of spare parts. In 1989, the Office of the Assistant Secretary of Defense (Production and Logistics), now part of the Office of the Under Secretary of Defense for Acquisition and Technology, conducted a study of consumable and repairable items at DoD wholesale inventory control points. The 1989 study revealed that, as the number of days of lead time decreases, the required number of days of safety level decreases proportionally at an 8-to-1 ratio. Therefore, for every 8 days that lead time is reduced, the safety level requirements are reduced by 1 day.

**Reducing Cycle Times.** A September 14, 1994, memorandum from the Secretary of Defense challenges the Military Departments and the Defense agencies to establish performance agreements that will reduce DoD cycle times by at least 50 percent by the year 2000. Cycle time is a term used to describe the period of time to accomplish a repetitive process. Administrative lead time for procurement is an example of cycle time. The memorandum states that, by reducing cycle time, the Government can achieve the goals of the Vice-President's National Performance Review: reducing infrastructure cost, streamlining processes, and improving customer service.

In his memorandum, the Secretary of Defense stated that reducing cycle time is important because time is money. By consuming personnel's time with lengthy processes, the Government pays enormous and unnecessary infrastructure costs that limit the Government's ability to fund warfighting requirements.

## Audit Objectives

The primary audit objective was to determine whether measures were in place to monitor and, when appropriate, to reduce administrative lead time for spare parts contracts. We also evaluated the adequacy of the DoD Components' management control programs as they applied to administrative lead time. See Appendix A for a discussion of the scope and methodology and the management control program and Appendix B for a summary of prior coverage related to the primary audit objective.

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## **Administrative Lead Time at DoD Inventory Control Points**

Some DoD inventory control points were more efficient than other DoD inventory control points in awarding contracts for spare parts. This performance difference occurred because the efficient DoD inventory control points were:

- using accurate administrative lead time measurement to monitor progress toward achieving goals,
- establishing clear goals for each segment of the administrative lead time process to encompass all administrative lead time,
- increasing management oversight of administrative lead time,
- including administrative lead time as an assessable unit in management control programs, and
- increasing use of automated contracts.

As a result, administrative lead times at less efficient DoD inventory control points can be reduced by implementing process improvements and performance measures used by the more efficient DoD inventory control points. Those improvements, when implemented at all DoD inventory control points, could result in reducing costs by as much as \$2 billion for FYs 1996 through 2001 by reducing DoD inventory and the cost to maintain inventory needed to cover administrative lead time.

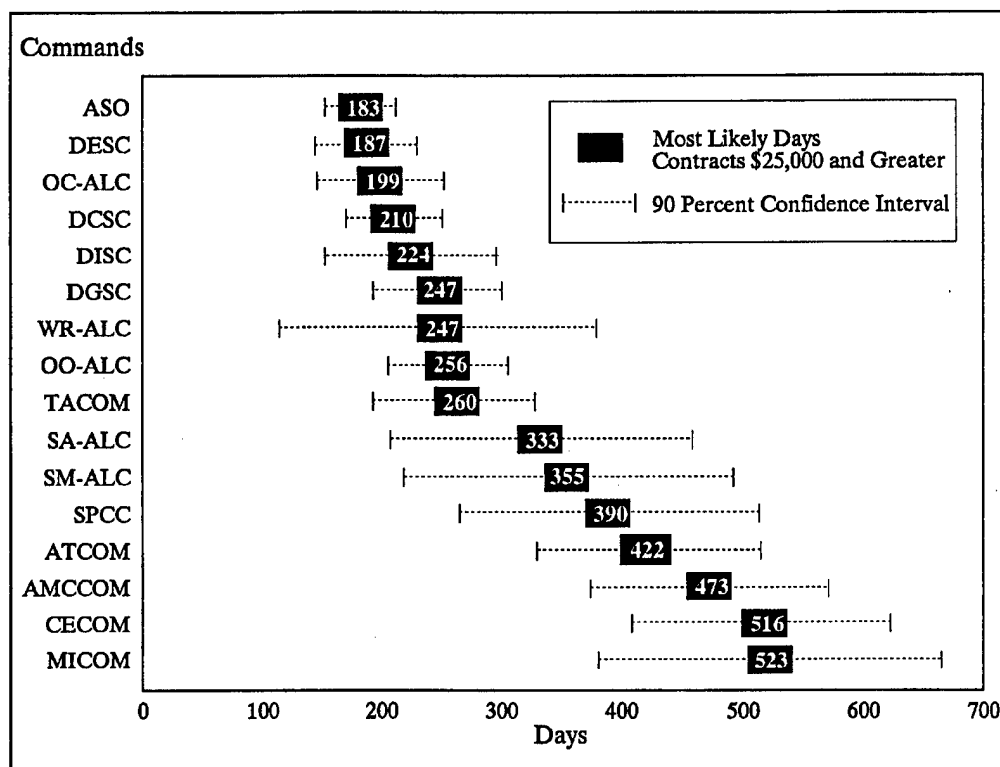
### **Definition of Administrative Lead Time**

Acquisition lead time, as defined in DoD Regulation 4140.1-R, is the time between identification of a need to purchase an item until the time the item has been delivered. Acquisition lead time is further broken down into two consecutive time periods: administrative lead time and production lead time. Our review focused exclusively on administrative lead time. Administrative lead time is the period from when a requirement has been identified to the point at which a contract is awarded.

We reviewed 568 contracts at 16 DoD inventory control points throughout DoD. At those 16 DoD inventory control points, we identified some programs that were working successfully to minimize administrative lead time and other programs that were not effective. The successful programs shared many characteristics, as did the unsuccessful programs. A comparison of the successful programs with the unsuccessful programs will highlight the strong points and identify the weaknesses that need to be corrected.

## Some DoD Inventory Control Points More Efficient Than Others

The estimated average time to award contracts at the DoD inventory control points varied widely. Figure 1 shows the difference in administrative lead times at the DoD inventory control points for contracts \$25,000 and greater. Acronyms are explained below the figure.



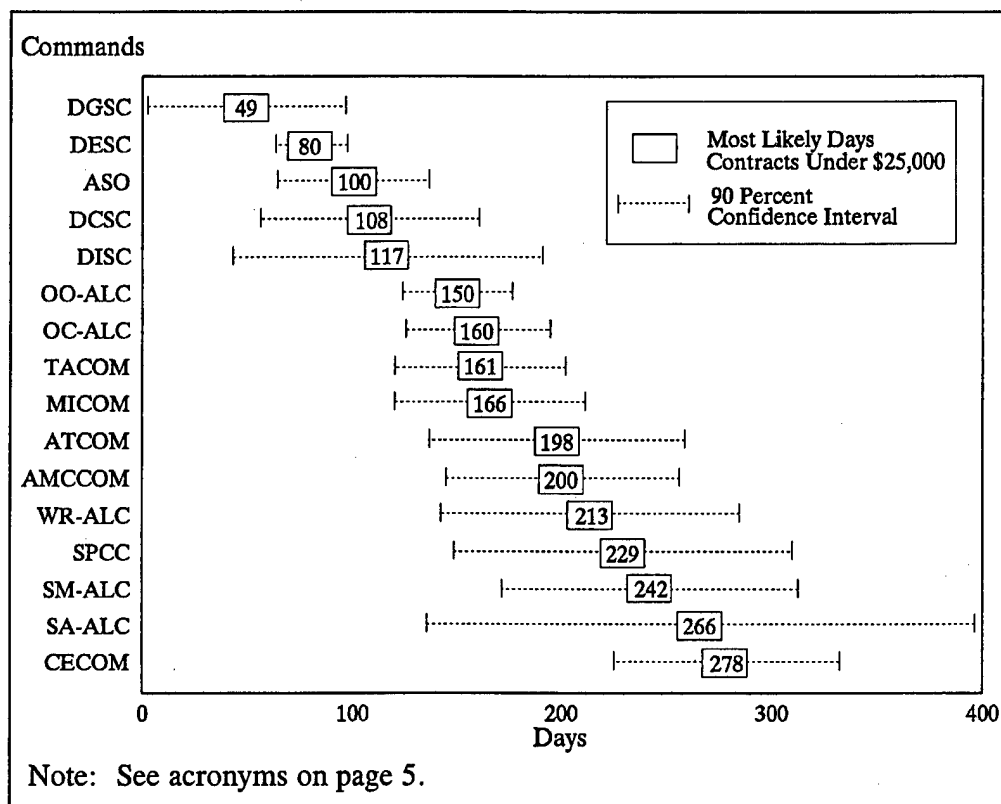
Army		Air Force	
AMCCOM	Armament, Munitions, and Chemical Command	OC-ALC	Oklahoma City Air Logistics Center
ATCOM	Aviation and Troop Command	OO-ALC	Ogden Air Logistics Center
CECOM	Communications-Electronics Command	SA-ALC	San Antonio Air Logistics Center
MICOM	Missile Command	SM-ALC	Sacramento Air Logistics Center
TACOM	Tank-automotive Command	WR-ALC	Warner Robins Air Logistics Center
Navy		Defense Logistics Agency	
ASO	Aviation Supply Office	DCSC	Defense Construction Supply Center
SPCC	Ships Parts Control Center	DESC	Defense Electronics Supply Center
		DGSC	Defense General Supply Center
		DISC	Defense Industrial Supply Center

**Figure 1. Administrative Lead Time Varied Widely at 16 DoD Inventory Control Points for Contracts \$25,000 and Greater**

The differences in administrative lead time indicated potential areas for improvement. Of the 334 contracts \$25,000 and greater that we reviewed at the 16 DoD inventory control points, the estimated average time to award contracts ranged from 183 to 523 days.

## Administrative Lead Time at DoD Inventory Control Points

Figure 2 shows the difference in administrative lead times at the DoD inventory control points for contracts under \$25,000.



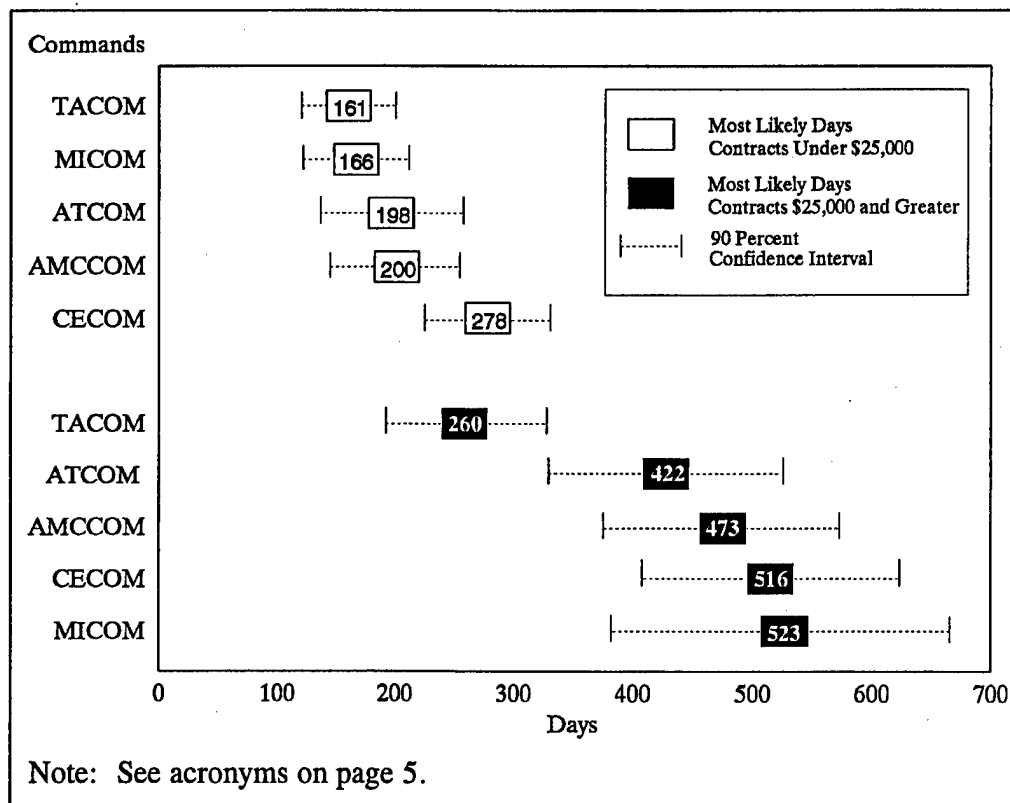
**Figure 2. Administrative Lead Time Varied Widely at 16 DoD Inventory Control Points for Contracts Under \$25,000**

The variance in administrative lead time indicated potential areas for improvement. Of the 234 contracts under \$25,000 that we reviewed at the 16 DoD inventory control points, the estimated average time to award contracts ranged from 49 to 278 days.

## Administrative Lead Time at DoD Inventory Control Points

**Administrative Lead Time at Army Inventory Control Points.** The Army Tank-automotive Command (TACOM) was clearly the most efficient of Army inventory control points in awarding large contracts, as seen in Figure 3, in that it had the shortest administrative lead time. TACOM demonstrated its greatest relative efficiency by averaging only 260 days to award large contracts, while the other four Army inventory control points took up to an estimated 523 days. TACOM had developed the Procurement Management System, a system that allowed management to be very familiar with the details of the administrative lead time process, a benefit that proved to be key in all of the more successful DoD inventory control points.

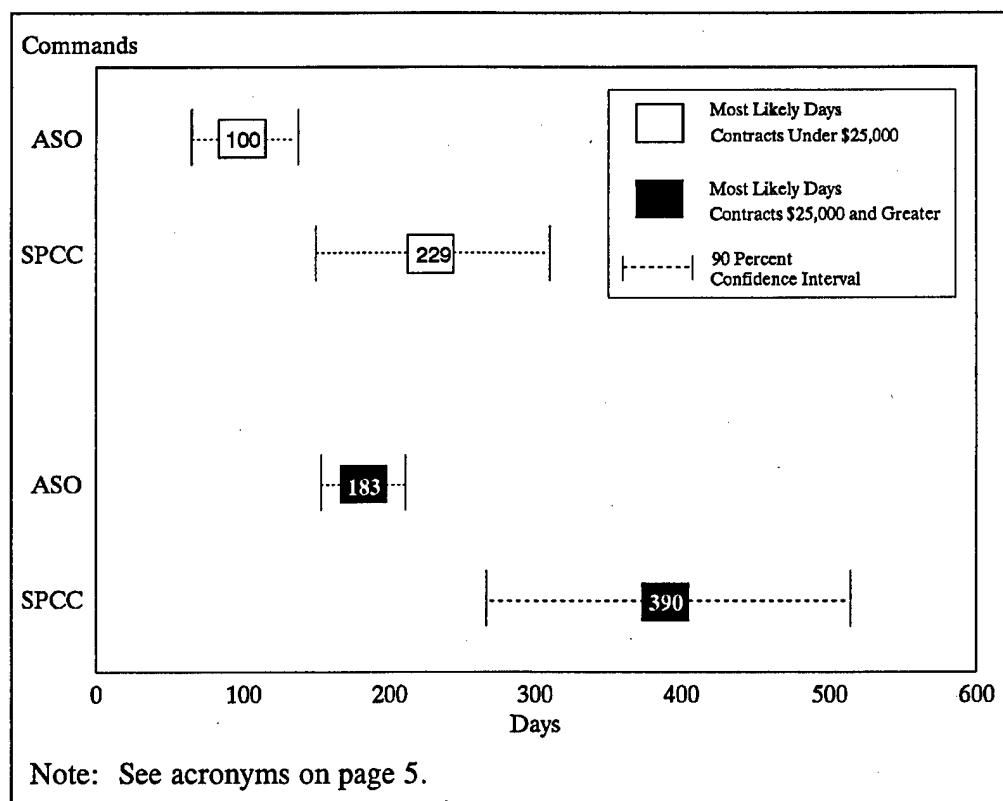
Figure 3 shows that TACOM was the most efficient of the five Army inventory control points in awarding large contracts.



**Figure 3. TACOM Awarded Large Contracts Significantly Faster Than Other Army Inventory Control Points**

## Administrative Lead Time at DoD Inventory Control Points

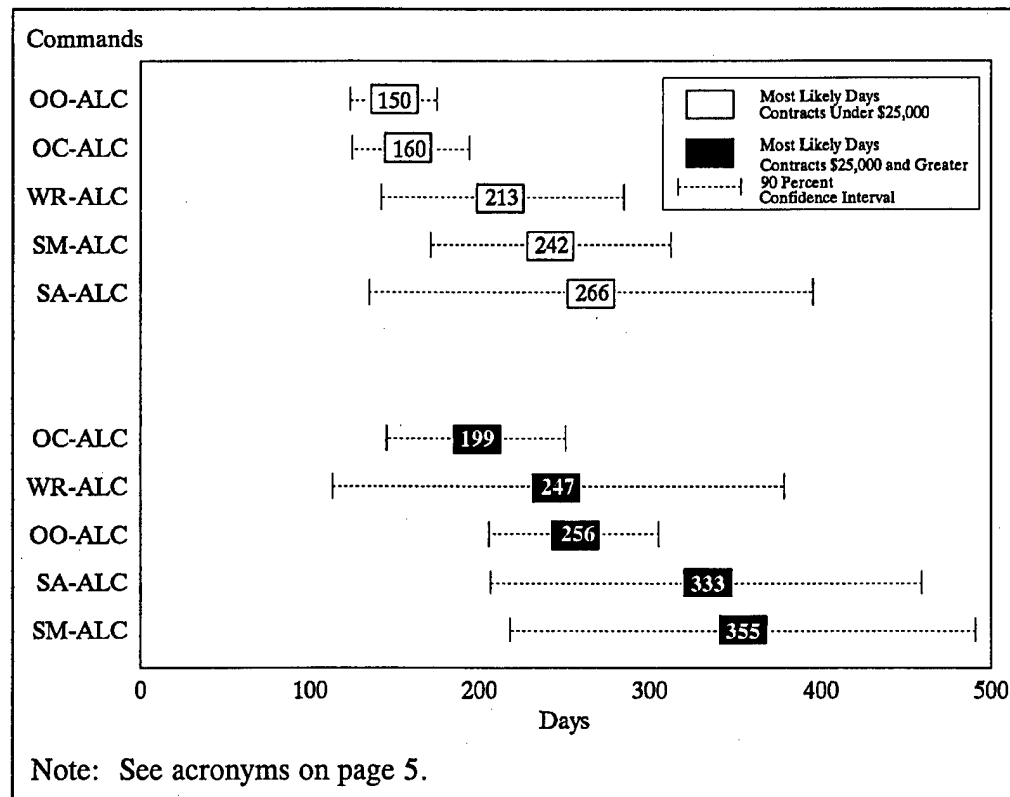
**Administrative Lead Time at Navy Inventory Control Points.** As discussed in detail in Inspector General, DoD, Report No. 94-053, "Administrative Lead Time at Navy Inventory Control Points," December 12, 1994, the Navy Aviation Supply Office (ASO) had highly developed management control tools in place for administrative lead time. As seen in Figure 4, administrative lead time at ASO, compared with the Navy Ships Parts Control Center, was shorter for both small and large contracts.



**Figure 4. ASO Awarded Contracts Significantly Faster Than Navy Ships Parts Control Center**

## Administrative Lead Time at DoD Inventory Control Points

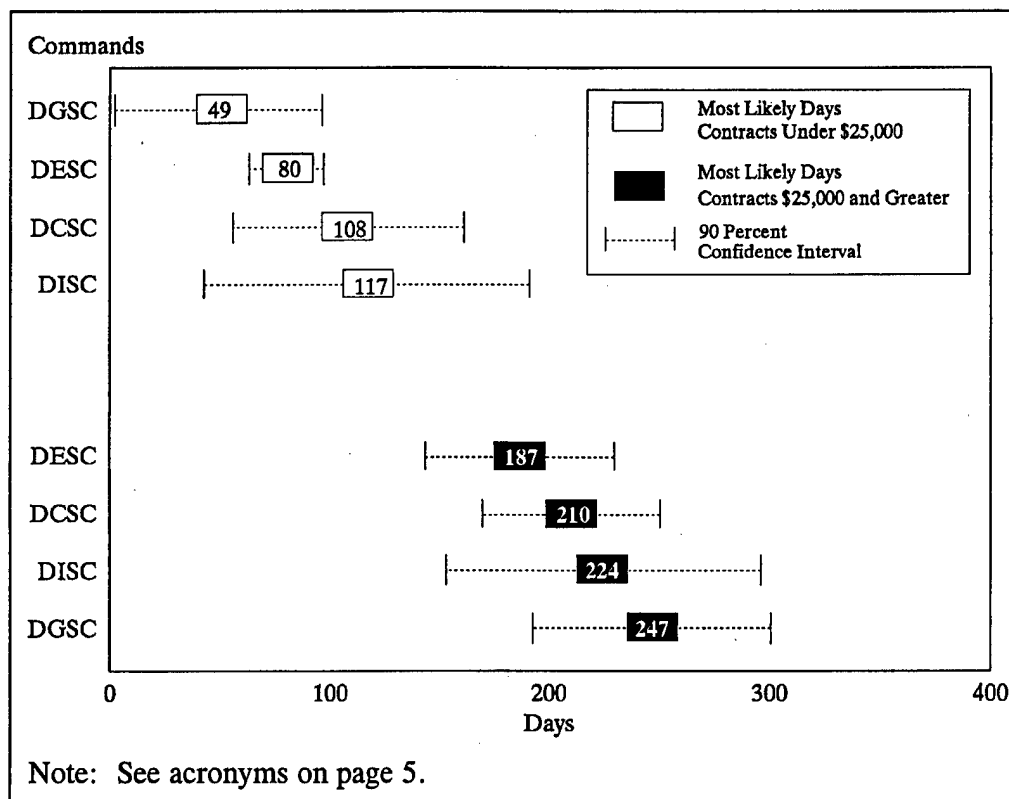
**Administrative Lead Time at Air Force Inventory Control Points.** Average administrative lead times at the air logistics centers varied widely. Figure 5 shows the estimated average administrative lead time for each of the five air logistics centers. The estimated average administrative lead time on large contracts at Oklahoma City Air Logistics Center ranked third among the sixteen DoD inventory control points, which we attribute again to involved management.



**Figure 5. Administrative Lead Time Among the Air Logistics Centers**

## Administrative Lead Time at DoD Inventory Control Points

**Administrative Lead Time at Defense Logistics Agency Inventory Control Points.** The Defense Logistics Agency (DLA) inventory control points were among the six most efficient DoD inventory control points. As seen in Figure 6, the estimated average time to award large contracts differed among the DLA inventory control points by only 60 days, as compared with as many as 263 days in the Military Departments.



**Figure 6. Defense Logistics Agency Administrative Lead Time Varied Least Among DoD Inventory Control Points**



## **Accurate Administrative Lead Time Measurement is Essential**

**Need for Accurate Administrative Lead Time Measurement.** Including all of the contract award process in administrative lead time measurement is essential because:

- segments of administrative lead time that are not measured cannot be effectively or actively managed,
- problems that exist within unmeasured segments cannot be identified or corrected, and
- management cannot determine how long it takes to award contracts.

**Criteria for Measuring Administrative Lead Time.** DoD Regulation 4140.1-R requires that administrative lead time begin at the spare part reorder point, which is the identification of the requirement. Administrative lead time is to include the purchase request review and approval and the technical data review, and end at the contract award.

**Administrative Lead Time Measurement at DoD Inventory Control Points.** Various DoD Components measured administrative lead time differently. The DLA supply centers and ASO were the only DoD inventory control points that measured administrative lead time according to DoD Regulation 4140.1-R. The remaining DoD inventory control points excluded the segment of administrative lead time from the point of the requirement identification to purchase request initiation. The length of the period of unmeasured administrative lead time differed with each DoD Component.

**Army Administrative Lead Time Measurement.** The Army method of tracking administrative lead time ignored the time from requirement identification until purchase request initiation. The Army inventory control points excluded an estimated average of 16 days from administrative lead time measurement.

**Navy Administrative Lead Time Measurement.** The Navy Ships Parts Control Center also ignored the time from requirement identification until purchase request initiation. The Navy Ships Parts Control Center excluded estimated average of 24 days from administrative lead time measurement. However, ASO accurately measured administrative lead time.

**Air Force Administrative Lead Time Measurement.** The Air Force did not include actual purchase request preparation time in its administrative lead time measurement for consumable items. The Air Force accounted for administrative lead time before the purchase request initiation by using a predetermined number of days. Actual days were consistently more than the predetermined number, and an estimated average of 61 days was excluded from administrative lead time measurement for consumable items.

**DLA Administrative Lead Time Measurement.** The DLA inventory control points correctly defined and measured administrative lead time.

### **Use of Segment Goals Common Element of Successful Administrative Lead Time Management**

Numerous tasks must be accomplished before a contract can be awarded, and delays can occur during any of those tasks. Monitoring each segment of the administrative lead time process provided management with opportunities to identify and correct problems early.

After reviewing contracts at 16 DoD inventory control points, it was evident that monitoring and managing the administrative lead time process by segments was a common element in successful administrative lead time management. Of the 16 DoD inventory control points, 5 successfully managed administrative lead time. Throughout the report, their successful methods, as well as some successful techniques used by other DoD inventory control points, will be described to highlight innovations that resulted in lower administrative lead time.

**ASO Use of Segment Goals.** The ASO was the most efficient of the 16 DoD inventory control points in awarding large contracts and also did well with small contracts. The key to successful management at ASO was dividing the administrative lead time process into smaller, more manageable, segments and establishing goals for each segment of the administrative lead time process. By accurately measuring each segment, ASO was better able to monitor and detect problems at an early stage. ASO management was able to identify problems early and provide assistance when it was needed.

**DLA Use of Segment Goals.** Of the four DLA inventory control points, three included in our review were among the five most efficient DoD inventory control points. The common element found at each of those commands was that goals were established for each segment of the administrative lead time process.

**TACOM Use of Segment Goals.** TACOM was the most efficient of the five Army inventory control points. TACOM developed the Procurement Management System, which established a goal for each segment of the administrative lead time process. By establishing goals for each segment of the administrative lead time process, management was able to identify problems and provide assistance when needed.

### **Increased Management Oversight of Administrative Lead Time Needed**

**Increased Management Oversight of Administrative Lead Time is Needed at Some DoD Inventory Control Points.** There were examples of effective management oversight that resulted in reduced administrative lead time at ASO and at the DLA inventory control points. However, administrative lead time could be improved at most DoD inventory control points through increased

## **Administrative Lead Time at DoD Inventory Control Points**

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management oversight. Each DoD inventory control point had a system in place that produced progress reports on all or part of the administrative lead time process. However, benefits provided by the progress reports were limited because management oversight was not adequate to identify problems and provide assistance when needed.

Even when administrative lead time was measured, purchase requests could sit idle without management involvement to promote action. Examples of management's lack of involvement follow.

**Technical Problems.** At DoD inventory control points, purchase requests were often returned to the technical engineering branch for clarification. At 1 Army inventory control point, 12 of 15 sampled contracts of more than \$100,000 had substantial delays attributed to technical problems. The delays ranged from 28 to 339 days.

Buyers generally did not make followup calls. However, technical personnel provided more timely response to those buyers who did make followup inquiries.

**Administrative Errors.** An error wherein a buyer misfiled a purchase request was not discovered until an amended purchase request was received 80 days later. Progress reports tracked the age of that purchase request but management did not question the buyer's lack of action and was not aware of the error.

**Excessive Buyer Overload.** We encountered different examples in which buyers explained a lapse in purchase request activity as being caused by higher priorities. In one sampled contract, a purchase request was assigned to a buyer, but was not worked by the buyer for 300 days. The buyer explained that higher priorities worked during the time lapse made it necessary to put the subject purchase request aside. We did not note any management actions to reprioritize or reassign the purchase request.

**Multiple Notices to Initiate a Purchase.** Computer-generated requirement notices prompt the item manager to begin the contract award process when the item manager receives the requirement notice. In some instances, the item manager may decide not to initiate the purchase. However, on one stock item, an item manager ignored five successive requirement notices (180 days total elapsed time) before initiating the purchase request. The purchase request then was processed under the highest possible urgency code because of a stock outage, and an essential mission area could not be carried out until the spare parts were delivered after the purchase request was processed as an emergency.

The cases described are just a few examples of sampled contracts in which more effective management oversight could have prevented the waste of valuable time.

### **Management Controls Can Help Identify Opportunities to Improve Administrative Lead Time**

Management controls at some locations resulted in identifying opportunities to improve and reduce administrative lead time. We also identified a material management control weakness at some Military Department inventory control points in that administrative lead time had not been identified as an assessable unit.

**Management Controls Over Administrative Lead Time.** ASO and the DLA inventory control points measured administrative lead time according to DoD instructions and implemented management controls over measurement of administrative lead time. Goals were established, and management monitored each segment of the administrative lead time process. The management controls helped management identify opportunities to improve administrative lead time. ASO reduced administrative lead time by 64 percent over the past 6 years.

**Administrative Lead Time as an Assessable Unit.** ASO and the DLA inventory control points included administrative lead time as an assessable unit in their mandatory management control reviews. The other 11 DoD inventory control points excluded a segment of administrative lead time. Management excluded a segment because administrative lead time was not included by the Military Departments as an assessable unit in their management control programs. As a result, the 11 DoD inventory control points were not able to identify potential areas for improvement. We believe the lack of identification as an assessable unit to be a material management control weakness because management was not fully aware of the time taken to award contracts or the costs associated with excessive administrative lead time.

### **Use of Automated Contracts Reduces Administrative Lead Time**

DoD Components have recognized a need to automate the contract award process which, in turn, reduces administrative lead time. Most of the automation effort has been accomplished on small purchases under \$25,000. The following are some of the most notable efforts to reduce administrative lead time.

**Innovative Electronic Data Transfers.** The DLA inventory control points and some Army inventory control points made substantial reductions in administrative lead time by creating innovative programs to speed the contract award process by using electronic data transfers between DLA inventory control points and vendors.

## Administrative Lead Time at DoD Inventory Control Points

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**Paperless Order Placement System.** The Paperless Order Placement System is a paperless method of transmitting delivery orders to a vendor against a previously awarded requirements contract. The Paperless Order Placement System provided numerous benefits to the Government through reduced administrative costs; lower inventory levels; and reduced shipping, storage, and handling costs. The system was developed in 1982 by the Defense General Supply Center and Eastman Kodak. The system provides commercial, off-the-shelf consumables to DoD customers within 5 to 10 days of vendor receipt of the order. Orders are usually received by DLA inventory control points and transmitted to the vendor within 24 hours. TACOM has a similar system in place for direct vendor delivery of tires.

**Procurement by Electronic Data Exchange.** Electronic Data Exchange is an electronic interface with vendors. The DLA inventory control points used electronic transfer technology to issue purchase orders against purchase agreements with vendors for purchases less than \$2,500. Vendor quotes can be evaluated electronically, and purchase orders are often placed without human intervention. The system also allows for buyer interface when needed. Electronic Data Exchange differs from the Paperless Order Placement System in that multiple vendors are used for each stock item. Competition is ensured because the Electronic Data Exchange rotates awards among vendors. DLA reported that 249,000 orders, worth \$157 million, were placed through the Electronic Data Exchange in FY 1993. That automated procurement accounted for 28 percent of the small purchases made in FY 1993 by DLA.

**Electronic Bid Boards.** The Electronic Bid Board reduces administrative lead time by making electronic requests for quotes and receiving electronic bids from vendors. The electronic exchange of data eliminates the cumbersome process of corresponding with vendors through the U.S. mail until the actual mailing of the contract award. The system was developed in 1993 by the Defense Electronics Supply Center to cut contracting time for specifically identified national stock numbers. The Electronic Bid Board is used for contracts up to \$25,000. It is suitable for awarding contracts on common commercial items that do not have requirements for special testing or inspection. Army Materiel Command has also initiated Electronic Bid Boards for Army inventory control points.

## Process Improvements Reduce Administrative Lead Time

**Publicizing Synopsis of Planned Solicitation Early.** Federally mandated contracting procedures contribute to the length of administrative lead time. Federal acquisition regulations require that specific tasks be performed before awarding Government contracts. For example, purchases with an anticipated value of \$25,000 and greater must be announced by a synopsis in the *Commerce Business Daily*. The synopsis alerts interested parties that a solicitation is planned for a specific spare part. The synopsis is published for 6 days, and then an additional 15 days transpire before a solicitation can be issued. That 21-day process is usually initiated at the time a purchase request is assigned to a contracting officer or buyer.

## **Administrative Lead Time at DoD Inventory Control Points**

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The air logistics centers published the synopsis before the purchase request was assigned to a buyer. That process improvement, simply changing the time at which a synopsis is published, has reduced administrative lead time by as much as 21 days. Starting in FY 1996, changes from the Federal Acquisition Streamlining Act will help reduce synopsis time for purchases under \$100,000.

**Forming Product Teams.** Organizational structures varied at the DoD inventory control points. The most innovative organizational structures were seen at the Defense Industrial Supply Center, Defense General Supply Center and the Defense Construction Supply Center, where requirements and procurement personnel were centrally located by functional area. That is, teams were formed that consisted of buyers, an item manager, an equipment specialist, and a quality assurance specialist. Each team was assigned a group of national stock numbers related to a specific product or products. Those product teams were still being tested during the span of this audit, but initial feedback showed promising results.

The Army Missile Command experimented with collocating technical support personnel by function and reported benefits of reduced administrative lead time, increased quality and productivity, and reduced costs.

We interviewed managers and team members at various DoD inventory control points and determined that the team concept fostered a common focus among the different specialists. That shared goal enabled the team to focus on administrative lead time as a whole, rather than on segments of it. In other words, the team took responsibility for the entire administrative lead time process. Although all potential benefits of collocation have not been determined, initial results showed that elapsed time for internal mail was substantially reduced and response time for technical problems was also improved.

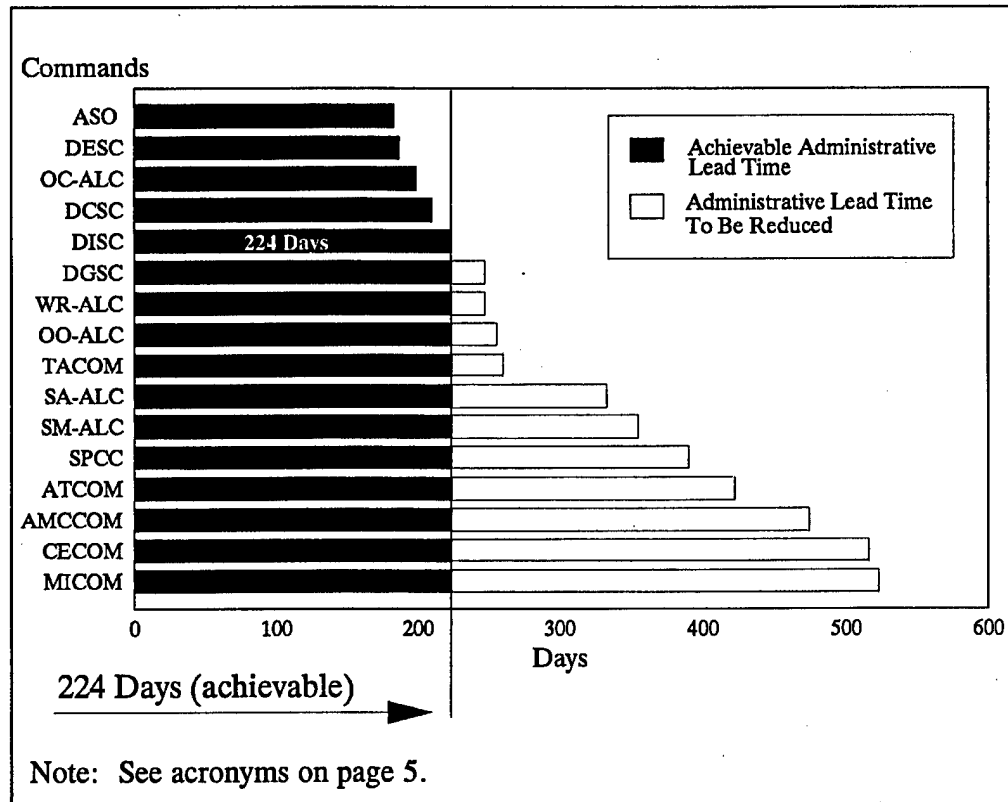
## **Potential for Improvement at DoD Inventory Control Points**

The diversity of administrative lead time among the DoD inventory control points illustrates the considerable potential for reducing administrative lead time at those DoD inventory control points that have the longer times.

**Achievable Administrative Lead Time.** Based on the administrative lead time performance of the five most efficient DoD inventory control points, 224 days administrative lead time for contracts \$25,000 and greater is an achievable goal for the other 11 DoD inventory control points. Implementing the efficient practices described in this report will enable all DoD inventory control points to achieve the goal of 224 days.

## Administrative Lead Time at DoD Inventory Control Points

The potential for improvement for contracts \$25,000 and greater at 11 of 16 DoD inventory control points is shown in Figure 7.

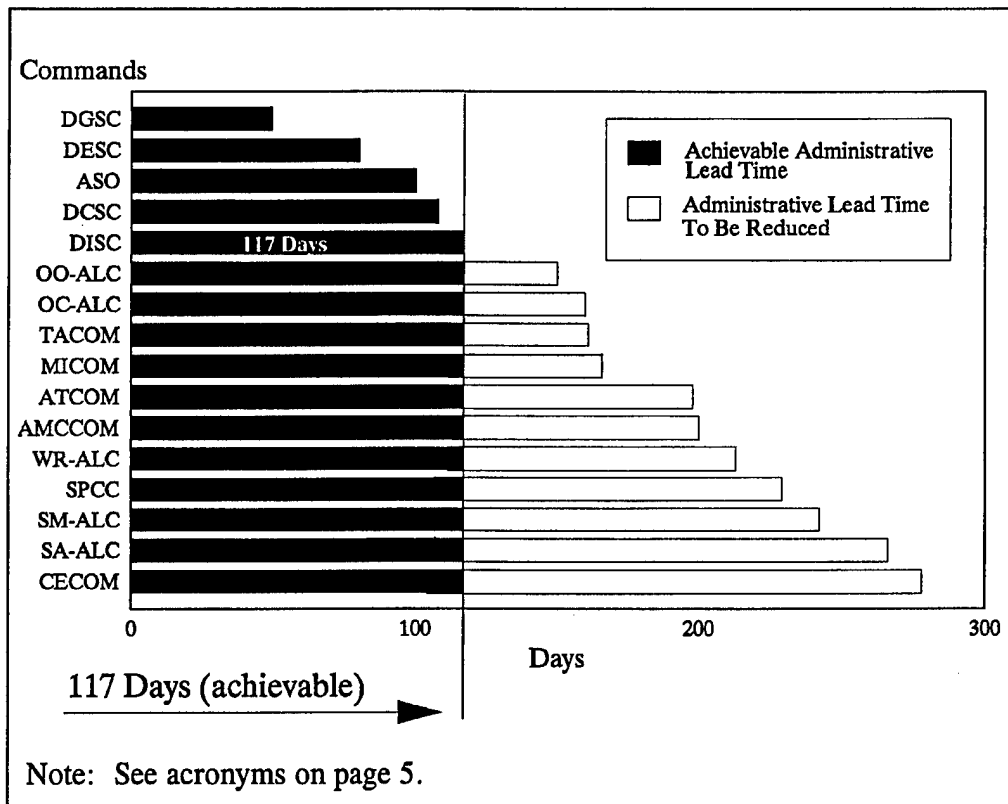


**Figure 7. Potential Administrative Lead Time Reductions at DoD Inventory Control Points for Contracts \$25,000 and Greater**

Based on the administrative lead time performance of the five most efficient DoD inventory control points, 117 days administrative lead time for contracts under \$25,000 is an achievable goal for the other 11 DoD inventory control points. By sharing existing use of automated contracts and establishing performance measures for small purchases, DoD inventory control points will be able to achieve the goal of 117 days for contracts under \$25,000.

Figure 8 shows the potential for improvement for contracts under \$25,000 at 11 of the 16 DoD inventory control points.

## Administrative Lead Time at DoD Inventory Control Points



**Figure 8. Potential Administrative Lead Time Reductions at DoD Inventory Control Points for Contracts Under \$25,000**

**Methodology for Calculating Potential Monetary Benefits of Reducing Administrative Lead Time.** The Joint Logistics Systems Center report, "The Joint Logistics Systems Center Materiel Management, Corporate Information Management, Business Process Improvement Project," June 25, 1993, identifies ways to improve administrative lead time and also provides a methodology to calculate the potential monetary benefits from reduced administrative lead time. We calculated potential monetary benefits from reduced administrative lead time using the methodology from the Joint Logistics Systems Center report. The details of our calculations are in Appendix D.

## Summary

Although the management of secondary spare parts procurement is in need of improvement, we identified several areas of exemplary performance at ASO and DLA inventory control points. Clearly, while improvements are needed, good management practices found at ASO, DLA, and TACOM inventory control points need to be shared. The examples of innovations and performance measures discussed in this finding represent considerable potential for further reductions in administrative lead time throughout DoD.



## **Recommendations, Management Comments, and Audit Response**

**1. We recommend that the Under Secretary of Defense (Comptroller) initiate appropriate adjustments during the DoD budget review process to reflect reduced administrative lead time.**

The Under Secretary of Defense (Comptroller) did not provide written comments on the recommendation, but did discuss the DoD FY 1996/1997 President's Budget with us. This budget includes lead time reductions for supply management of \$1.5 billion for the Army, the Air Force, and the DLA. Personnel at the Under Secretary of Defense (Comptroller) office also informed us that the adjustment for the Navy is still being determined by the Under Secretary of Defense (Comptroller) and the Navy.

Although they were not required to comment, we received unsolicited comments on Recommendation 1. from the Office of the Under Secretary of Defense for Acquisition and Technology, the Army, the Navy, the Air Force, and DLA.

**Office of the Under Secretary of Defense for Acquisition and Technology Comments.** The Assistant Deputy Under Secretary of Defense (Materiel and Distribution Management) nonconcurred, stating that the methodology used to calculate potential monetary benefits was incorrect, which resulted in a gross overstatement of potential monetary benefits resulting from reduced administrative lead time. The Assistant Deputy stated that any calculation of potential monetary benefits resulting from shorter acquisition lead times must be based on reductions in safety level.

**Army Comments.** The Army nonconcurred with Recommendation 1., stating that the methodology used to arrive at \$2 billion in potential monetary benefits was flawed. Any potential monetary benefits resulting from lead time reductions will be in the form of working capital authority and will not be recoverable from appropriated dollars. As lead times are reduced, a one-time bubble of items in the supply pipeline will be created. The potential monetary benefits from the one-time bubble are very difficult to determine in advance and will occur over a number of years as the excess inventory is consumed.

**Navy Comments.** The Navy concurred, in principle, with Recommendation 1., stating that administrative lead time will result in safety level savings. However, the Navy does not believe that the potential monetary benefits for reduced administrative lead time are as extensive as projected by the audit report. The Navy projects a savings of \$5.2 million for both consumable and repairable items. The Navy agreed to examine the issue of holding costs and safety level savings to identify any additional savings in the future.

**Air Force Comments.** The Air Force nonconcurred with Recommendation 1., stating that the incorrect methodology used to calculate potential monetary benefits grossly overstates potential monetary benefits resulting from reduced administrative lead time. Further, the Air Force states the Under Secretary of Defense (Comptroller) has already reduced the FY 1996

## Administrative Lead Time at DoD Inventory Control Points

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budget estimate for several reasons, including lead times; therefore, the potential monetary benefits resulting from reduced administrative lead time could result in a duplicate reduction in the Air Force budget estimate.

**DLA Comments.** The DLA nonconcurred with Recommendation 1., questioning the validity of the audit sampling strategy and the computation of potential monetary benefits based on reduced administrative lead time. DLA stated that administrative lead time has no direct affect on inventory levels.

**Audit response.** The actions taken by the Under Secretary of Defense (Comptroller) on Recommendation 1. are responsive to the intent of the recommendation.

The Assistant Deputy and the DoD Components each described a different dislike with the calculated potential monetary benefits estimate. However, the respondents provided neither convincing arguments nor an alternative accepted methodology to calculate potential monetary benefits resulting from reduced administrative lead time.

Although all the DoD Components agree with the recommendation to reduce lead time, none agrees that a significant reduction in administrative lead time will result in significant potential monetary benefits. The Navy comments indicate that the only benefit to a significant reduction in administrative lead time would be \$5 million over a 6-year period. This type of logic from the Navy is not defensible. Further, at the request of the Office of the Deputy Under Secretary of Defense for Logistics, we met with operations research analysts from the Logistics Management Institute, who are supporting the office. The Logistics Management Institute personnel had questioned the potential monetary benefits, but could not provide any mathematical data to refute the potential monetary benefits and its calculation methodology. The Logistics Management Institute personnel comments are not credible as related to the potential monetary benefits. Also, their biased comments on the issue, which are not supported by mathematical rigor, are providing no benefits to the office of the Deputy Under Secretary. Because none of the respondents was able to articulate a specific error in our computational methodology, and because our methodology is based on a valid statistical sample and the Joint Logistics Systems Center methodology, we have no reason to modify the potential monetary benefits. We accept the Under Secretary of Defense Comptroller reductions in the FY 1996/1997 President's Budget for the Army, the Air Force, and the Defense Logistics Agency, to accommodate lower lead time inventory requirements. No further comments are required from the Army, the Air Force, or the DLA. However, because there is no such comparable reduction for the Navy and the Navy contends that its reduction would be insignificant by comparison, we request the Under Secretary of Defense (Comptroller) to provide the results of any future Navy budget reductions for reduced lead times for our evaluation.

## **Administrative Lead Time at DoD Inventory Control Points**

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### **2. We recommend the Commanders of the DoD inventory control points:**

#### **a. Implement performance measures for the administrative lead time process that:**

**(1) Establish goals for completion of segments of the administrative lead time award process.**

**(2) Monitor administrative lead time from the time of requirement notice to contract award.**

#### **b. Include administrative lead time as an assessable unit within their management control programs.**

#### **c. Increase the use of automated contracts, when appropriate, to dramatically reduce administrative lead time.**

**Army Comments.** The Army concurred with Recommendation 2.a.(1), stating that the Army Materiel Command has established a command-wide process action team to develop recommendations on improving both administrative lead time and production lead time. The process action team has been directed to identify the best mechanism of those used at the five Army inventory control points to track items through the procurement process. The Army will use the identified system as a standard tracking system for all Army inventory control points. The Army concurred with Recommendation 2.b., to include administrative lead time as an assessable unit in its management control program. Also, the Army concurred with Recommendation 2.c., citing its use of electronic data transfer capabilities and electronic bulletin board systems to reduce administrative lead time. However, the Army nonconcurred with Recommendation 2.a.(2), stating that the auditors incorrectly identified the starting point of the administrative lead time. The Army stated that monitoring administrative lead time from the time of the requirement notice to contract award would overstate cycle time and result in more inventory being procured than required.

**Navy Comments.** The Navy concurred with Recommendation 2.a. to implement performance measures for the administrative lead time process. Also, the Navy concurred with Recommendations 2.b. and 2.c. to include administrative lead time as an assessable unit within the management control program and to increase the use of automated contracts, where appropriate, to dramatically reduce administrative lead time.

**Air Force Comments.** The Air Force concurred with Recommendation 2.a., stating that an integrated process team has been established to implement improvement actions in the acquisition process. Also, the Air Force stated that contracting will begin to collect the interim milestone data within the contracting processes by the fourth quarter of FY 1995 to measure actual process time. The Air Force concurred with Recommendation 2.b., stating that contract administrative lead time is currently a component of the major command metric. The Air Force recognized that purchase request preparation time has been measured at most of the air logistics centers; however,

## **Administrative Lead Time at DoD Inventory Control Points**

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inconsistencies exist. The Air Force concurred with Recommendation 2.c., stating it is actively pursuing the development and implementation of Electronic Commerce/Electronic Data Interchange as well as electronic bulletin boards.

**DLA Comments.** The DLA concurred with Recommendation 2.a. to implement performance measures for the administrative lead time process. The DLA also concurred with Recommendation 2.b., stating that DLA already includes administrative lead time as an assessable unit within its management control program. Additionally, DLA concurred with Recommendation 2.c. to increase the use of automated contracts, stating that DLA is pursuing an aggressive automated contract program.

**Audit response.** The Army comments were not responsive to Recommendation 2.a.(2). Administrative lead time, as defined in DoD Regulation 4140.1-R, begins when a requirement is identified. In a policy memorandum, "Administrative Lead Time (ALT) Policy Interpretation - ACTION MEMORANDUM," May 27, 1994, the Joint Logistics Systems Center also defined administrative lead time as beginning when an item reaches its reorder point and a buy is recommended or an automatic buy is generated. On June 16, 1994, the Army responded to the Joint Logistics Systems Center policy memorandum and agreed with the definition stating that "... this definition will require the Army to change its definition of administrative lead time to reflect that administrative lead time begins with the identification of the requirement instead of the initiation of the Procurement Work Directive." Therefore, we request that the Army reconsider its position and provide additional comments on Recommendation 2.a.(2) by August 16, 1995.

The actions taken by the Air Force were not responsive to Recommendations 2.a. and 2.b. because the Air Force did not address the time period of administrative lead time before the purchase request. We maintain the entire administrative lead time process needs to have performance measures, as well as be included as an assessable unit in the Air Force management control program. Therefore, we request that the Air Force reconsider its position and provide additional comments on Recommendations 2.a. and 2.b. by August 16, 1995.

The actions taken by the Navy and DLA on Recommendation 2. are responsive to the intent of the recommendation. Accordingly, additional comments are not required.

## **Part II - Additional Information**

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## Appendix A. Scope and Methodology

### Scope

**Audit Locations.** We reviewed the process for monitoring administrative lead time at 16 DoD inventory control points. See Appendix F for a list of organizations visited or contacted.

**Universe.** We took stratified samples from a universe of 593,436 contracts, valued at \$6.5 billion, awarded by 16 DoD inventory control points from July 1, 1992, through June 30, 1993. The universe excluded delivery orders and requirement contracts, except for the base-year contracts for contracts \$25,000 and greater.

**Data Reviewed.** We reviewed documentation for contracts awarded from July 1, 1992, through June 30, 1993, to determine the actual administrative lead time for the 568 sampled contracts at 16 DoD inventory control points. We measured the time elapsed from the date of requirement to the award of the contract. Specifically, we reviewed purchase requests, supply demand reviews, and contract files to identify the time taken to award contracts. In addition, we interviewed item managers, buyers, and contracting officers.

**Use of Technical Staff.** Analysts from the Quantitative Methods Division, Audit Planning and Technical Support Directorate, Office of the Assistant Inspector General for Auditing, DoD, assisted in this audit. Analysts helped formulate a statistical sampling plan and computed the statistical projection. Using the audit results, the analysts estimated the administrative lead time at each of the 16 DoD inventory control points.

**Use of Computer-Processed Data.** We relied on computer-processed data from the DoD Contract Action Reporting System to determine which contracting activities to visit and to determine audit sample selection. Although we did not perform a formal reliability assessment of the computer-processed data, we determined that contract numbers, award dates, contractors, and Federal supply codes on the contracts reviewed generally agreed with the information on the computer-processed data. We did not find errors that would preclude use of the computer-processed data to meet the objectives of the audit or that would change the conclusions in this report.

**Audit Period and Standards.** We performed this economy and efficiency audit from March 1993 through December 1994. The audit was performed according to auditing standards issued by the Comptroller General of the United States as carried out by the Inspector General, DoD. Accordingly, we included tests of management controls considered necessary.

## Statistical Sampling Procedures

**Sampling Purposes.** The primary purpose of the statistical sampling plan is to estimate the average numbers of administrative lead time days taken for spare parts contracts at each of the 16 DoD inventory control points. For each site, separate estimates are required for the group of contracts under \$25,000 and for those contracts \$25,000 and greater. Also, for the Army, Navy Ships Parts Control Center, and Air Force separately, the average numbers of administrative lead time days not counted by their respective administrative lead time measurement procedures are estimated. For the Army and the Air Force, those estimates are across all inventory control points and both dollar groups of contracts. For the Air Force, only consumable items are included in the projection.

**Universes Represented.** The audit universes for each DoD inventory control point and contract dollar grouping are defined as all contracts for spare parts issued from July 1, 1992, through June 30, 1993. Delivery orders, foreign military sales and other than base-year requirements contracts are excluded from the universes for contracts \$25,000 and greater.

During the sample, 47 of the selected contracts were found to be out of the scope of the audit. To ensure conservative statistical projections, the universe sizes for the respective DoD inventory control points were reduced by the number of out of scope contracts identified at each DoD inventory control point. The audit universe for each DoD inventory control point is shown in Table A-1.

## Appendix A. Scope and Methodology

**Table A-1. Audit Universe for Each DoD Inventory Control Point**

Inventory Control Point	Contracts	
	Under \$25,000	\$25,000 and Greater
<b>Army</b>		
Armament, Munitions, and Chemicals Command	1,224	428
Aviation and Troop Command	2,070	499
Communications-Electronics Command	333	178
Missile Command	626	148
Tank-automotive Command	3,318	911
<b>Navy</b>		
Aviation Supply Office	10,841	1,429
Ships Parts Control Center	9,703	1,549
<b>Air Force</b>		
Oklahoma City Air Logistics Center	4,400	697
Ogden Air Logistics Center	3,295	700
San Antonio Air Logistics Center	7,569	670
Sacramento Air Logistics Center	1,795	290
Warner Robins Air Logistics Center	4,721	734
<b>Defense Logistics Agency</b>		
Defense Construction Supply Center	144,661	2,761
Defense Electronics Supply Center	73,806	1,189
Defense General Supply Center	165,556	2,434
Defense Industrial Supply Center	143,662	1,192

**Sampling Designs.** For the groups of contracts under \$25,000, simple random samples of 15 contracts each were selected at the Army, Air Force, and DLA inventory control points. For the Navy, simple random samples of 20 contracts under \$25,000 were taken at each of the 2 Navy inventory control points. For the contracts \$25,000 and greater, stratified samples were taken at all 16 DoD inventory control points. The strata are defined by dollar ranges: contracts from \$25,000 to \$100,000, and contracts over \$100,000. At each of the Army, Air Force, and DLA inventory control points, a total of 21 contracts \$25,000 and greater were sampled. For the Navy, 30 contracts \$25,000 and greater were selected from each of the 2 Navy inventory control points.



## Sampling Results

**Confidence Interval for Contracts Under \$25,000.** We are 90-percent confident that the average administrative lead time days for each of the DoD inventory control points is from the lower bound to the upper bound for each contract under \$25,000. The unbiased point estimate is the most likely single value for the average administrative lead time days for this group of contracts at each DoD inventory control point. Table A-2 shows the statistical projections of the sample data.

**Table A-2. Average Administrative Lead Time Days for Each DoD Inventory Control Point for Contracts Under \$25,000**

<u>Inventory Control Point</u>	<u>90-Percent Confidence Intervals</u>		
	<u>Lower Bound</u>	<u>Point Estimate</u>	<u>Upper Bound</u>
<b>Army</b>			
Armament, Munitions, and Chemicals Command	144.8	200.3	255.8
Aviation and Troop Command	137.4	197.9	258.5
Communications-Electronics Command	224.6	278.2	331.8
Missile Command	120.0	165.5	211.1
Tank-automotive Command	119.6	160.7	201.8
<b>Navy</b>			
Aviation Supply Office	64.1	100.4	136.8
Ships Parts Control Center	148.7	229.2	309.6
<b>Air Force</b>			
Oklahoma City Air Logistics Center	126.2	160.5	194.8
Ogden Air Logistics Center	124.2	150.3	176.4
San Antonio Air Logistics Center	135.7	266.0	396.3
Sacramento Air Logistics Center	171.8	242.1	312.5
Warner Robins Air Logistics Center	141.6	213.4	285.1
<b>Defense Logistics Agency</b>			
Defense Construction Supply Center	55.9	108.5	161.1
Defense Electronics Supply Center	62.8	79.8	96.8
Defense General Supply Center	2.3	49.0	95.7
Defense Industrial Supply Center	43.0	117.2	191.4

## Appendix A. Scope and Methodology

**Confidence Interval for Contracts \$25,000 and Greater.** We are 90-percent confident that the average administrative lead time days for each of the DoD inventory control points is from the lower bound to the upper bound for each contract \$25,000 and greater. The unbiased point estimate is the most likely single value for the average administrative lead time days for this group of contracts at each DoD inventory control point. Table A-3 shows the statistical projections of the sample data.

**Table A-3. Average Administrative Lead Time Days for Each DoD Inventory Control Point for Contracts \$25,000 and Greater**

<u>Inventory Control Point</u>	<u>90-Percent Confidence Intervals</u>		
	<u>Lower Bound</u>	<u>Point Estimate</u>	<u>Upper Bound</u>
<b>Army</b>			
Armament, Munitions, and Chemicals Command	375.4	473.5	571.6
Aviation and Troop Command	329.6	421.9	514.2
Communications-Electronics Command	408.2	515.8	623.4
Missile Command	381.4	523.1	664.8
Tank-automotive Command	193.4	260.5	327.6
<b>Navy</b>			
Aviation Supply Office	152.9	182.9	212.8
Ships Parts Control Center	265.9	389.7	513.5
<b>Air Force</b>			
Oklahoma City Air Logistics Center	146.6	199.4	252.1
Ogden Air Logistics Center	206.4	256.2	306.0
San Antonio Air Logistics Center	206.6	332.6	458.6
Sacramento Air Logistics Center	218.8	355.2	491.6
Warner Robins Air Logistics Center	114.1	246.5	379.0
<b>Defense Logistics Agency</b>			
Defense Construction Supply Center	170.1	210.4	250.7
Defense Electronics Supply Center	144.4	187.4	230.4
Defense General Supply Center	193.4	247.0	300.6
Defense Industrial Supply Center	152.7	224.2	295.7

**Table A-4. Average Administrative Lead Time Days Not Counted for Army Inventory Control Points**

	<u>90 Percent Confidence Interval</u>		
	<u>Lower Bound</u>	<u>Point Estimate</u>	<u>Upper Bound</u>
Army*	12.8	15.6	18.3

\*We are 90-percent confident that Army inventory control points average from 12.8 to 18.3 days of unaccounted administrative lead time. The unbiased point estimate, 15.6 days, is the most likely single value for the average unaccounted administrative lead time days for Army inventory control points.

**Table A-5. Average Administrative Lead Time Days Not Counted for Navy Ships Parts Control Center**

	<u>90 Percent Confidence Interval</u>		
	<u>Lower Bound</u>	<u>Point Estimate</u>	<u>Upper Bound</u>
Navy Ships Parts Control Center*	13.2	23.8	34.4

\*We are 90-percent confident that Navy Ships Parts Control Center averages from 13.2 to 34.4 days of unaccounted administrative lead time. The unbiased point estimate, 23.8 days, is the most likely single value for the average unaccounted administrative lead time days for Navy Ships Parts Control Center.

## Appendix A. Scope and Methodology

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**Table A-6. Average Administrative Lead Time Days Not Counted for Air Force Inventory Control Point Consumable Items**

	<u>90 Percent Confidence Interval</u>		
	<u>Lower Bound</u>	<u>Point Estimate</u>	<u>Upper Bound</u>
Air Force*	31.9	60.7	89.5

\*We are 90-percent confident that Air Force inventory control points average from 31.9 to 89.5 days of unaccounted administrative lead time for consumable items. The unbiased point estimate, 60.7 days, is the most likely single value for the average unaccounted administrative lead time days for Air Force inventory control point consumable items.

**Data Modifications.** Of the sampled Army contracts, 25 could not be located or had insufficient information in their files for at least one of the measures we projected statistically. Likewise, 7 sampled Navy contracts, 27 sampled Air Force contracts and 38 sampled DLA contracts could not be audited fully. Those missing data values were imputed using hot deck methodology and the corresponding sample variances were increased to reflect the imputations. That imputation methodology preserves the unbiasedness of both the statistically projected point estimates and their associated confidence intervals.

## Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

**Scope of Review of the Management Control Programs.** We reviewed the DoD inventory control points' compliance with DoD Directive 5010.38. Specifically, we evaluated the policies and the guidance issued by DoD Components for measuring administrative lead time and the DoD Components' implementation of management controls over monitoring and measuring administrative lead time. We also reviewed the DoD Components' self-evaluation of the applicable management controls.

**Adequacy of Management Controls.** ASO and the DLA inventory control points measured administrative lead time according to DoD instructions and implemented management controls over measurement of administrative lead time.

However, for 11 DoD Component inventory control points, we identified a material management control weakness at the DoD Component level as defined by DoD Directive 5010.38. Management controls were not adequate to keep DoD inventory control point management aware of problems with administrative lead time at the 11 DoD inventory control points. We consider the weakness to be material because the substantial cost of long administrative lead times hinders DoD readiness. Recommendation 2.b. in this report, if implemented, will improve management awareness of administrative lead time, and costs of up to \$2 billion could be avoided. See Appendix E for details of the potential benefits resulting from the audit. A copy of the report will be provided to the senior officials responsible for management controls in the Military Departments.

**Adequacy of DoD Components' Self-Evaluation of Applicable Management Controls.** Because 11 of the 16 DoD Components did not identify administrative lead time as an assessable unit, the DoD Components had not performed a self-evaluation and, therefore, had not reported in their annual statement of assurance the material management control weakness identified by the audit. The five Air Force inventory control points did not identify administrative lead time as an assessable unit because they did not consider that tracking actual administrative lead time would identify a financial weakness. We disagree with that narrow interpretation of the applicability of the DoD Management Control Program. The remaining DoD Components did not address why they did not consider administrative lead time as an assessable unit. Because DLA inventory control point management controls were adequate, we are not addressing the adequacy of the DLA self-evaluation of those management controls in this report.

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## **Appendix B. Summary of Prior Audits and Other Reviews**

During the last five years, one General Accounting Office report and four Inspector General, DoD, reports have specifically addressed administrative lead time.

### **General Accounting Office**

General Accounting Office Report No. NSIAD 95-2 (OSD Case No. 9792), "Defense Supply Acquisition Lead time [sic] Requirements can be Significantly Reduced," December 1994, reports that DoD has made only limited progress in reducing acquisition lead time because its lead time reduction initiatives have been unevenly implemented by the Military Departments and the Defense Logistics Agency. The report also states that DoD can reduce acquisition lead time days by at least 25 percent over a 4-year period at a savings of about \$1 billion. The report recommends that the Secretary of Defense direct the Secretaries of the Army and the Air Force and the Director of the Defense Logistics Agency to place renewed emphasis on implementing the DoD lead time reduction initiatives and to follow the Navy in setting lead time reduction goals. The Deputy Under Secretary of Defense (Logistics) agreed that further action to reduce acquisition lead time is required; however, the most effective means to accomplish the reduction is full implementation of the DoD Materiel Management Regulation.

### **Inspector General, DoD**

Three Inspector General, DoD, reports were issued as part of the audit of administrative lead time. Those reports discussed administrative lead time at Army Aviation and Troop Command, Navy inventory control points, and Air Force inventory control points. A fourth Inspector General, DoD, report, independent of the administrative lead time audit, discussed Navy requirements for currently procured wholesale inventories of repairable items.

Inspector General, DoD, Report No. 95-188, "Air Force Measurement of Administrative Lead Time," May 5, 1995, reports that the Air Force did not have appropriate measures in place to monitor and reduce administrative lead time for consumable spare parts procurement contracts. The Air Force did not know the actual time needed to award a contract and did not include actual purchase request preparation time in its administrative lead time calculation. The Air Force could potentially improve readiness and increase competition, resulting in costs avoided of \$136 million. The report recommends Air Force

## Appendix B. Summary of Prior Audits and Other Reviews

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implement a performance measurement system that establishes goals and monitors actual administrative lead time. The Air Force concurred with the intent of using actual administrative lead time with the understanding that the Air Force budget will increase with the use of actual lead times. The Air Force did not agree with the potential monetary benefits.

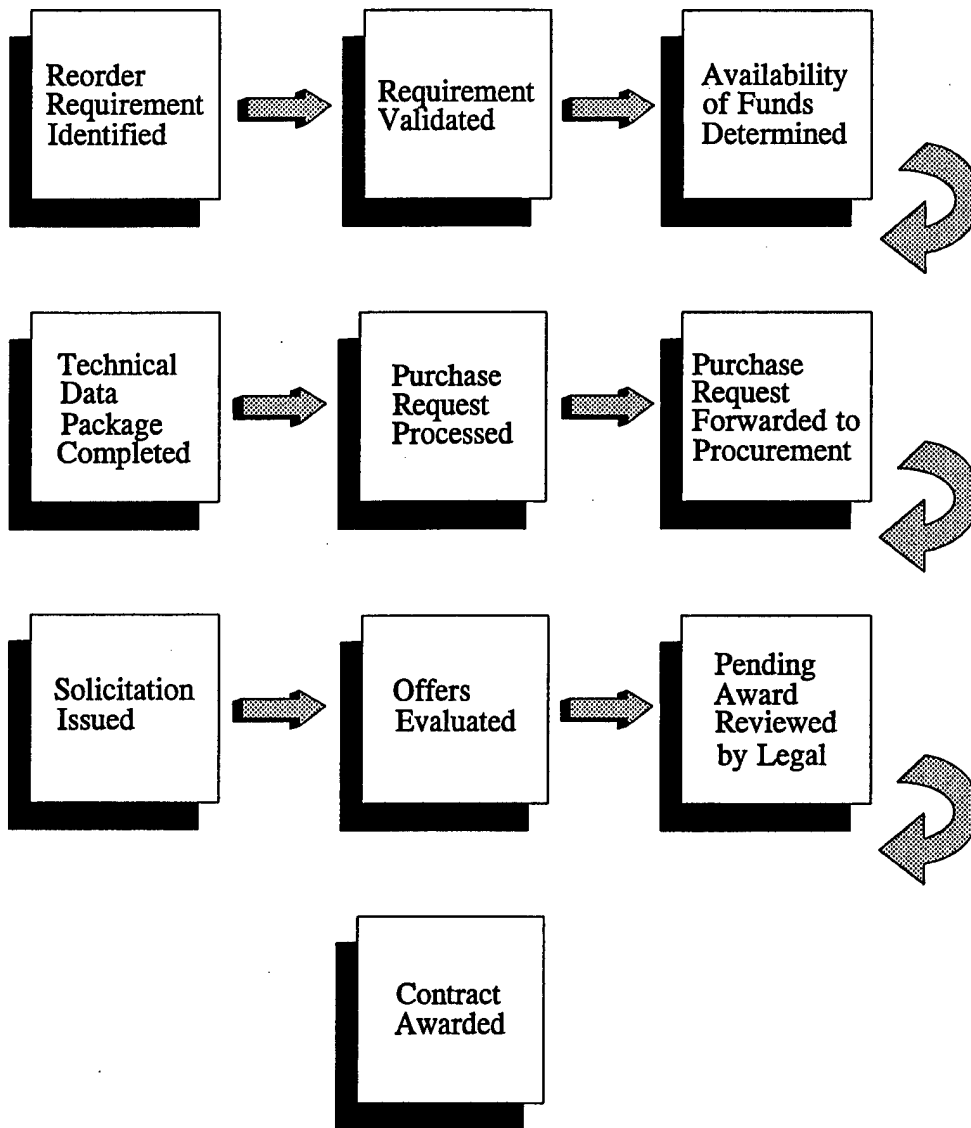
Inspector General, DoD, Report No. 95-053, "Administrative Lead Time at Navy Inventory Control Points," December 12, 1994, states that the Aviation Supply Office awarded contracts for spare parts faster than the Ships Parts Control Center. The Ships Parts Control Center could potentially improve benefits for readiness by about \$579 million. The report recommends that the Ships Parts Control Center implement a performance measurement system that establishes goals and monitors actual administrative lead time. The Navy agreed with the recommendation to establish goals and monitor administrative lead time; however, the Navy did not agree with the potential monetary benefits.

Inspector General, DoD, Report No. 94-102, "Administrative Lead Time At the Procurement Law Division, Army Aviation and Troop Command," May 17, 1994, identifies a potential 6-day reduction in administrative lead time by improving management controls over the final legal review process of contract actions. The report recommended establishing controls to monitor the final legal review process for contract actions and implementing a performance measurement system for the Procurement Law Division. The Commander, Army Aviation and Troop Command, Army Materiel Command, agreed to establish a better tracking system for contract actions in the Procurement Law Division and to establish a performance measurement system.

Inspector General, DoD, Report No. 93-049, "Navy Requirements for Currently Procured Wholesale Inventories of Repairable Items," February 1, 1993, identifies premature or unnecessary purchases because of inadequate requirement identification. The report recommended additional guidance be issued and that management controls over supervisory approval of purchase decisions be strengthened. The Assistant Secretary of the Navy (Research, Development, and Acquisition) concurred with the recommendations.

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## Appendix C. Administrative Lead Time Process





## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-1. Army Communications-Electronics Command  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	49	\$941,573	\$46,137,077	0.23	49	\$10,611,528
1997	49	941,573	46,137,077	0.23	98	21,223,055
1998	49	941,573	46,137,077	0.23	147	31,834,583
1999	49	941,573	46,137,077	0.23	196	42,446,111
2000	48	941,573	45,195,504	0.23	244	52,841,077
2001	<u>48</u>	941,573	<u>45,195,504</u>	0.23	292	<u>63,236,043</u>
<b>Total</b>	<b>292</b>		<b>\$274,939,316</b>			<b>\$222,192,397</b>

**Table D-2. Army Communications-Electronics Command  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	27	\$36,482	\$985,014	0.23	27	\$226,553
1997	27	36,482	985,014	0.23	54	453,106
1998	27	36,482	985,014	0.23	81	679,660
1999	27	36,482	985,014	0.23	108	906,213
2000	27	36,482	985,014	0.23	135	1,132,766
2001	<u>26</u>	36,482	<u>948,532</u>	0.23	161	<u>1,350,928</u>
<b>Total</b>	<b>161</b>		<b>\$5,873,602</b>			<b>\$4,749,226</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-3. Army Missile Command  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	50	\$610,115	\$30,505,750	0.23	50	\$7,016,323
1997	50	610,115	30,505,750	0.23	100	14,032,645
1998	50	610,115	30,505,750	0.23	150	21,048,968
1999	50	610,115	30,505,750	0.23	200	28,065,290
2000	50	610,115	30,505,750	0.23	250	35,081,613
2001	<u>49</u>	610,115	<u>29,895,635</u>	0.23	299	<u>41,957,609</u>
<b>Total</b>	<b>299</b>		<b>\$182,424,385</b>			<b>\$147,202,448</b>

**Table D-4. Army Missile Command  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	9	\$9,606	\$86,454	0.23	9	\$19,884
1997	8	9,606	76,848	0.23	17	37,559
1998	8	9,606	76,848	0.23	25	55,235
1999	8	9,606	76,848	0.23	33	72,910
2000	8	9,606	76,848	0.23	41	90,585
2001	<u>8</u>	9,606	<u>76,848</u>	0.23	49	<u>108,260</u>
<b>Total</b>	<b>49</b>		<b>\$470,694</b>			<b>\$384,433</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-5. Army Armament, Munitions, and Chemical Command  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	42	\$435,165	\$18,276,930	0.23	42	\$4,203,694
1997	42	435,165	18,276,930	0.23	84	8,407,388
1998	42	435,165	18,276,930	0.23	126	12,611,082
1999	41	435,165	17,841,765	0.23	167	16,714,688
2000	41	435,165	17,841,765	0.23	208	20,818,294
2001	<u>41</u>	435,165	<u>17,841,765</u>	0.23	249	<u>24,921,900</u>
<b>Total</b>	<b>249</b>		<b>\$108,356,085</b>			<b>\$87,677,046</b>

**Table D-6. Army Armament, Munitions, and Chemical Command  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	14	\$6,224	\$87,136	0.23	14	\$20,041
1997	14	6,224	87,136	0.23	28	40,083
1998	14	6,224	87,136	0.23	42	60,124
1999	14	6,224	87,136	0.23	56	80,165
2000	14	6,224	87,136	0.23	70	100,206
2001	<u>13</u>	6,224	<u>80,912</u>	0.23	83	<u>118,816</u>
<b>Total</b>	<b>83</b>		<b>\$516,592</b>			<b>\$419,435</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-7. Army Aviation and Troop Command  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	33	\$1,449,583	\$47,836,239	0.23	33	\$11,002,335
1997	33	1,449,583	47,836,239	0.23	66	22,004,670
1998	33	1,449,583	47,836,239	0.23	99	33,007,005
1999	33	1,449,583	47,836,239	0.23	132	44,009,340
2000	33	1,449,583	47,836,239	0.23	165	55,011,675
2001	<u>33</u>	1,449,583	<u>47,836,239</u>	0.23	198	<u>66,014,010</u>
<b>Total</b>	<b>198</b>		<b>\$287,017,434</b>			<b>\$231,049,035</b>

**Table D-8. Army Aviation and Troop Command  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	14	\$29,583	\$414,162	0.23	14	\$95,257
1997	14	29,583	414,162	0.23	28	190,515
1998	14	29,583	414,162	0.23	42	285,772
1999	13	29,583	384,579	0.23	55	374,225
2000	13	29,583	384,579	0.23	68	462,678
2001	<u>13</u>	29,583	<u>384,579</u>	0.23	81	<u>551,131</u>
<b>Total</b>	<b>81</b>		<b>\$2,396,223</b>			<b>\$1,959,578</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-9. Army Tank-automotive Command  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	6	\$718,834	\$4,313,004	0.23	6	\$991,991
1997	6	718,834	4,313,004	0.23	12	1,983,982
1998	6	718,834	4,313,004	0.23	18	2,975,973
1999	6	718,834	4,313,004	0.23	24	3,967,964
2000	6	718,834	4,313,004	0.23	30	4,959,955
2001	<u>6</u>	718,834	<u>4,313,004</u>	0.23	36	<u>5,951,946</u>
<b>Total</b>	<b>36</b>		<b>\$25,878,024</b>			<b>\$20,831,811</b>

**Table D-10. Army Tank-automotive Command  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	8	\$41,998	\$335,984	0.23	8	\$77,276
1997	8	41,998	335,984	0.23	16	154,553
1998	7	41,998	293,986	0.23	23	222,169
1999	7	41,998	293,986	0.23	30	289,786
2000	7	41,998	293,986	0.23	37	357,403
2001	<u>7</u>	41,998	<u>293,986</u>	0.23	44	<u>425,020</u>
<b>Total</b>	<b>44</b>		<b>\$1,847,912</b>			<b>\$1,526,207</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-11. Navy Ships Parts Control Center  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	28	\$1,234,153	\$34,556,284	0.23	28	\$7,947,945
1997	28	1,234,153	34,556,284	0.23	56	15,895,891
1998	28	1,234,153	34,556,284	0.23	84	23,843,836
1999	28	1,234,153	34,556,284	0.23	112	31,791,781
2000	27	1,234,153	33,322,131	0.23	139	39,455,871
2001	<u>27</u>	1,234,153	<u>33,322,131</u>	0.23	166	<u>47,119,962</u>
<b>Total</b>	<b>166</b>		<b>\$204,869,398</b>			<b>\$166,055,286</b>

**Table D-12. Navy Ships Parts Control Center  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	19	\$217,791	\$4,138,029	0.23	19	\$951,747
1997	19	217,791	4,138,029	0.23	38	1,903,493
1998	19	217,791	4,138,029	0.23	57	2,855,240
1999	19	217,791	4,138,029	0.23	76	3,806,987
2000	18	217,791	3,920,238	0.23	94	4,708,641
2001	<u>18</u>	217,791	<u>3,920,238</u>	0.23	112	<u>5,610,296</u>
<b>Total</b>	<b>112</b>		<b>\$24,392,592</b>			<b>\$19,836,404</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-13. Sacramento Air Logistics Center  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	22	\$168,000	\$3,696,000	0.23	22	\$850,080
1997	22	168,000	3,696,000	0.23	44	1,700,160
1998	22	168,000	3,696,000	0.23	66	2,550,240
1999	22	168,000	3,696,000	0.23	88	3,400,320
2000	22	168,000	3,696,000	0.23	110	4,250,400
2001	<u>21</u>	168,000	<u>3,528,000</u>	0.23	131	<u>5,061,840</u>
<b>Total</b>	<b>131</b>		<b>\$22,008,000</b>			<b>\$17,813,040</b>

**Table D-14. Sacramento Air Logistics Center  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	21	\$6,866	\$144,186	0.23	21	\$33,163
1997	21	6,866	144,186	0.23	42	66,326
1998	21	6,866	144,186	0.23	63	99,488
1999	21	6,866	144,186	0.23	84	132,651
2000	21	6,866	144,186	0.23	105	165,814
2001	<u>20</u>	6,866	<u>137,320</u>	0.23	125	<u>197,398</u>
<b>Total</b>	<b>125</b>		<b>\$858,250</b>			<b>\$694,840</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-15. San Antonio Air Logistics Center  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	19	\$840,003	\$15,960,057	0.23	19	\$3,670,813
1997	18	840,003	15,120,054	0.23	37	7,148,426
1998	18	840,003	15,120,054	0.23	55	10,626,038
1999	18	840,003	15,120,054	0.23	73	14,103,650
2000	18	840,003	15,120,054	0.23	91	17,581,263
2001	<u>18</u>	840,003	<u>15,120,054</u>	0.23	109	<u>21,058,875</u>
<b>Total</b>	<b>109</b>		<b>\$91,560,327</b>			<b>\$74,189,065</b>

**Table D-16. San Antonio Air Logistics Center  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	25	\$27,463	\$686,575	0.23	25	\$157,912
1997	25	27,463	686,575	0.23	50	315,825
1998	25	27,463	686,575	0.23	75	473,737
1999	25	27,463	686,575	0.23	100	631,649
2000	25	27,463	686,575	0.23	125	789,561
2001	<u>24</u>	27,463	<u>659,112</u>	0.23	149	<u>941,157</u>
<b>Total</b>	<b>149</b>		<b>\$4,091,987</b>			<b>\$3,309,841</b>

Note: See footnotes at the end of the appendix.



## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-17. Ogden Air Logistics Center  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	6	\$2,100,008	\$12,600,048	0.23	6	\$2,898,011
1997	6	2,100,008	12,600,048	0.23	12	5,796,022
1998	5	2,100,008	10,500,040	0.23	17	8,211,031
1999	5	2,100,008	10,500,040	0.23	22	10,626,040
2000	5	2,100,008	10,500,040	0.23	27	13,041,050
2001	<u>5</u>	2,100,008	<u>10,500,040</u>	0.23	32	<u>15,456,059</u>
<b>Total</b>	<b>32</b>		<b>\$67,200,256</b>			<b>\$56,028,213</b>

**Table D-18. Ogden Air Logistics Center  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	6	\$12,206	\$73,236	0.23	6	\$16,844
1997	6	12,206	73,236	0.23	12	33,689
1998	6	12,206	73,236	0.23	18	50,533
1999	5	12,206	61,030	0.23	23	64,570
2000	5	12,206	61,030	0.23	28	78,607
2001	<u>5</u>	12,206	<u>61,030</u>	0.23	33	<u>92,644</u>
<b>Total</b>	<b>33</b>		<b>\$402,798</b>			<b>\$336,887</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-19. Warner Robins Air Logistics Center  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	4	\$3,024,012	\$12,096,048	0.23	4	\$2,782,091
1997	4	3,024,012	12,096,048	0.23	8	5,564,182
1998	4	3,024,012	12,096,048	0.23	12	8,346,273
1999	4	3,024,012	12,096,048	0.23	16	11,128,364
2000	4	3,024,012	12,096,048	0.23	20	13,910,455
2001	<u>3</u>	3,024,012	<u>9,072,036</u>	0.23	23	<u>15,997,023</u>
<b>Total</b>	<b>23</b>		<b>\$69,552,276</b>			<b>\$57,728,388</b>

**Table D-20. Warner Robins Air Logistics Center  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	16	\$12,206	\$195,296	0.23	16	\$44,918
1997	16	12,206	195,296	0.23	32	89,836
1998	16	12,206	195,296	0.23	48	134,754
1999	16	12,206	195,296	0.23	64	179,672
2000	16	12,206	195,296	0.23	80	224,590
2001	<u>16</u>	12,206	<u>195,296</u>	0.23	96	<u>269,508</u>
<b>Total</b>	<b>96</b>		<b>\$1,171,776</b>			<b>\$943,278</b>

Note: See footnotes at the end of the appendix.

## Appendix D. Computation of Holding Costs and Inventory Reduction Benefits

**Table D-21. Oklahoma City Air Logistics Center  
Contracts Under \$25,000**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	8	\$17,546	\$140,368	0.23	8	\$32,285
1997	7	17,546	122,822	0.23	15	60,534
1998	7	17,546	122,822	0.23	22	88,783
1999	7	17,546	122,822	0.23	29	117,032
2000	7	17,546	122,822	0.23	36	145,281
2001	<u>7</u>	17,546	<u>122,822</u>	0.23	43	<u>173,530</u>
<b>Total</b>	<b>43</b>		<b>\$754,478</b>			<b>\$617,445</b>

**Table. D-22. Defense General Supply Center  
Contracts \$25,000 and Greater**

Fiscal Year	Potential Improvement (days) <sup>1</sup>	Daily Demand <sup>2</sup>	Inventory Benefits <sup>3</sup>	Cost to Hold Ratio <sup>4</sup>	Cumulative Potential Improvement (days) <sup>5</sup>	Total Holding Cost Benefits <sup>6</sup>
1996	4	\$1,366,500	\$5,466,000	0.23	4	\$1,257,180
1997	4	1,366,500	5,466,000	0.23	8	2,514,360
1998	4	1,366,500	5,466,000	0.23	12	3,771,540
1999	4	1,366,500	5,466,000	0.23	16	5,028,720
2000	4	1,366,500	5,466,000	0.23	20	6,285,900
2001	<u>3</u>	1,366,500	<u>4,099,500</u>	0.23	23	<u>7,228,785</u>
<b>Total</b>	<b>23</b>		<b>\$31,429,500</b>			<b>\$26,086,485</b>

Note: See footnotes at the end of the appendix.

#### **Appendix D. Computation of Holding Costs and Inventory Reduction Benefits**

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<sup>1</sup>Improvement will be achieved over 6 years.

<sup>2</sup>Daily demand was calculated by dividing FY 1995 budget data for consumables and repairables by 360 days.

<sup>3</sup>Potential improvement (days) times daily demand.

<sup>4</sup>Represents the cost of holding inventory, which includes cost of money (10 percent), obsolescence (12 percent), and storage (1 percent).

<sup>5</sup>Represents the total days inventory can be reduced over 6 years.

<sup>6</sup>Daily demand times cost to hold ratio times cumulative potential improvement (days) represents the total benefits from reduced inventory over 6 years.

## Appendix E. Summary Of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Amount of Benefit
1.	Economy and Efficiency. Reduces budget amounts to reflect reduced administrative lead time, inventory, and inventory maintenance.	Monetary benefits are included in Recommendation 2.a.
2.a.	Program Results. Improves the oversight of the spare parts procurement process and helps reduce administrative lead time.	Funds put to better use of \$2 billion over 6 years (revolving fund).*
2.b.	Management Controls. Reduces administrative lead time, which could result in potential cost avoidance by reducing inventory levels.	Funds put to better use. Monetary benefits are included in Recommendation 2.a.
2.c.	Economy and Efficiency. Reduces budget amounts to reflect reduced administrative lead time, inventory, and inventory maintenance.	Monetary benefits are included in Recommendation 2.a.

\*\$2 billion can be put to better use by reducing inventory needed to cover the administrative lead time and the cost to maintain that inventory. The monetary benefits may be spread over more than 1 year as administrative lead time is reduced and inventory requirements are adjusted correspondingly, as follows. See Appendix D for additional information.

### Potential Monetary Benefits By Fiscal Year (millions)

	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>Total</u>
Inventory	\$186	\$187	\$185	\$186	\$185	\$182	\$1,111
Holding Costs	<u>43</u>	<u>86</u>	<u>129</u>	<u>172</u>	<u>214</u>	<u>256</u>	<u>900</u>
<b>Total</b>	<b>\$229</b>	<b>\$273</b>	<b>\$314</b>	<b>\$358</b>	<b>\$399</b>	<b>\$438</b>	<b>\$2,011*</b>

\*\$2 billion total excludes \$0.5 billion of benefits reported in Inspector General, DoD, reports on Navy and Air Force administrative lead time. See Appendix B for the summary of those reports.

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## **Appendix F. Organizations Visited or Contacted**

### **Office of the Secretary of Defense**

Under Secretary of Defense (Comptroller), Washington, DC  
Deputy Under Secretary of Defense for Acquisition Reform, Washington, DC  
Deputy Under Secretary of Defense (Logistics), Washington, DC  
Joint Logistics Systems Center, Dayton, OH

### **Department of the Army**

Army Materiel Command, Alexandria, VA  
Aviation and Troop Command, St. Louis, MO  
Armament, Munitions, and Chemical Command, Rock Island, IL  
Communications-Electronics Command, Fort Monmouth, NJ  
Missile Command, Redstone Arsenal, AL  
Tank-automotive Command, Warren, MI  
Auditor General, Department of the Army, Washington, DC

### **Department of the Navy**

Assistant Secretary of the Navy (Research, Development, and Acquisition),  
Arlington, VA  
Navy Supply Systems Command, Arlington, VA  
Navy Aviation Supply Office, Philadelphia, PA  
Navy Ships Parts Control Center, Mechanicsburg, PA

### **Department of the Air Force**

Assistant Secretary of the Air Force (Financial Management and Comptroller),  
Arlington, VA  
Air Force Materiel Command, Wright-Patterson Air Force Base, OH  
Ogden Air Logistics Center, Hill Air Force Base, UT  
Oklahoma City Air Logistics Center, Tinker Air Force Base, OK  
Sacramento Air Logistics Center, McClellan Air Force Base, CA  
San Antonio Air Logistics Center, Kelly Air Force Base, TX  
Warner Robins Air Logistics Center, Robins Air Force Base, GA

## **Other Defense Organizations**

Defense Logistics Agency, Alexandria, VA  
Defense Construction Supply Center, Columbus, OH  
Defense Electronics Supply Center, Dayton, OH  
Defense General Supply Center, Richmond, VA  
Defense Industrial Supply Center, Philadelphia, PA

## **Non-Government Organizations**

Logistics Management Institute, McLean, VA

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## **Appendix G. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition and Technology  
  Director, Defense Logistics Studies Information Exchange  
Under Secretary of Defense (Comptroller)  
  Deputy Under Secretary of Defense (Comptroller/Management)  
  Deputy Under Secretary of Defense (Comptroller/Program/Budget)  
Director, Defense Procurement  
Deputy Under Secretary of Defense for Acquisition Reform  
Deputy Under Secretary of Defense (Logistics)  
Assistant to the Secretary of Defense (Public Affairs)

### **Department of the Army**

Assistant Secretary of the Army (Installations, Logistics, Environment)  
Commander, Army Materiel Command  
  Commander, Aviation and Troop Command  
  Commander, Armament, Munitions, and Chemical Command  
  Commander, Communications-Electronics Command  
  Commander, Missile Command  
  Commander, Tank-automotive Command  
Auditor General, Department of the Army

### **Department of the Navy**

Assistant Secretary of the Navy (Financial Management and Comptroller)  
Assistant Secretary of the Navy (Research, Development, and Acquisition)  
Commander, Navy Supply Systems Command  
  Commander, Navy Aviation Supply Office  
  Commander, Navy Ships Parts Control Center  
Auditor General, Department of the Navy

### **Department of the Air Force**

Assistant Secretary of the Air Force (Acquisition)  
Assistant Secretary of the Air Force (Financial Management and Comptroller)



## **Department of the Air Force (cont'd)**

Commander, Air Force Materiel Command  
Commander, Ogden Air Logistics Center  
Commander, Oklahoma City Air Logistics Center  
Commander, Sacramento Air Logistics Center  
Commander, San Antonio Air Logistics Center  
Commander, Warner Robins Air Logistics Center  
Auditor General, Department of the Air Force

## **Other Defense Organizations**

Director, Defense Contract Audit Agency  
Director, Defense Logistics Agency  
Commander, Defense Construction Supply Center  
Commander, Defense Electronics Supply Center  
Commander, Defense General Supply Center  
Commander, Defense Industrial Supply Center  
Director, Defense Performance Review  
Director, National Security Agency  
Inspector General, National Security Agency  
Inspector General, Central Imagery Office

## **Non-Defense Federal Organizations**

Office of Management and Budget  
Technical Information Center, National Security and International Affairs Division,  
General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on National Security, Committee on Appropriations  
House Committee on Government Reform and Oversight  
House Subcommittee on National Security, International Affairs, and Criminal  
Justice, Committee on Government Reform and Oversight  
House Committee on National Security

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## **Part III - Management Comments**

# Under Secretary of Defense for Acquisition and Technology Comments



ACQUISITION AND  
TECHNOLOGY

(L/MDM)

## OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON  
WASHINGTON DC 20301-3000

03 MAY 1995

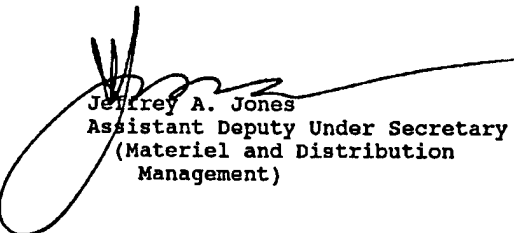


### MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING

SUBJECT: Draft of a Proposed Audit Report, "Administrative  
Lead Time at DoD Inventory Control Points,"  
Project No. 3CD-0043.03, dated March 10, 1995

The subject draft report cites, at the bottom of page 18, "The Joint Logistics Systems Center Materiel Management, Corporate Information Management, Business Process Improvement Project" report dated June 25, 1993, as the source for a methodology to calculate the potential monetary benefits from reduced administrative lead time. That methodology is incorrect, and its use results in a gross overstatement of savings resulting from reduced administrative lead time. I request that the erroneous savings calculations based on that methodology be removed from the report before it is issued as a final report.

For example, the reductions listed in Appendix D as "inventory reductions" for Army Inventory Control Points exceed the current total Army safety level. The portion of the requirement for on-hand inventory that is reduced as a result of shorter lead times is the safety level, which is associated with the variability of supply and demand. The safety level is, however, only a fraction of the overall inventory. Any calculation of savings resulting from shorter acquisition lead times must be based on reductions in safety level. Please let me know if you need further information on this prior to finalizing this report.

  
Jeffrey A. Jones  
Assistant Deputy Under Secretary  
(Materiel and Distribution  
Management)



# Department of the Army Comments



DEPARTMENT OF THE ARMY  
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS  
500 ARMY PENTAGON  
WASHINGTON, DC 20310-0500



DALO-SMP 9800387L

12 MAY 1995

MEMORANDUM THRU

DEPUTY CHIEF OF STAFF FOR LOGISTICS

~~DIRECTOR OF THE ARMY STAFF~~ *will 14 May 95*  
THOMAS W. HUGHES, LTC, GS, ADECC *15 May 95*

ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS, LOGISTICS AND ENVIRONMENT)

*Eric A. Orzini*  
Deputy Assistant Secretary of the Army  
(Logistics)  
OASA (I.L&E)

FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE (AUDITING)

SUBJECT: Audit Report on Administrative Lead Time at DOD  
Inventory Control Points (Project No. 3CD-0043.03)--INFORMATION  
MEMORANDUM

1. This is in response to USAAA memorandum of 13 March 1995 (Tab A), which asked ODCSLOG to respond to your memorandum of 10 March 1995 (Encl to Tab A). Your memorandum requested that ODCSLOG review subject report and provide management comments on the recommendations and potential monetary benefits.
2. ODCSLOG manages Acquisition Lead Time Reduction under the auspices of the Total Army Inventory Management Program. This includes initiatives to reduce administrative lead time and production lead time, as well as those under Velocity Management that will emphasize delivery by fastest possible means to meet user requirements. (Velocity Management looks at reduction of all lead (cycle) times.)
3. At Tab B is USAMC's detailed comments and response to subject audit. The Army endorses USAMC's response, and emphasizes USAMC's comments about the scope and methodology used in this study. In addition, the Army will continue to pursue the proliferation of automated contracts.

2 Encls

*John J. Cusick*  
JOHN J. CUSICK  
Major General, GS  
Director of Supply  
and Maintenance

CF:  
HQDA, ATTN: VCSA, SAIG-PA,  
DALO-ZXA, SARD-RP  
CDR, AMC

## Department of the Army Comments

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DALO-SMP

SUBJECT: Audit Report on Administrative Leat Time at DOD  
Inventory Control Points (Project No. 3CD-0043.03)--INFORMATION  
MEMORANDUM

Coordination:

SARD-RP - Concur, Mr. Linke/37323 (by phone)  
AMCLG-SR - Concur, Ms Reyes/274-3670 (by phone)  
ASA(I,L&E) - Concur, Mr. Croom/75727 (conference)

Mrs. Hensley/57785

## Department of the Army Comments



DEPARTMENT OF THE ARMY  
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND  
5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333 - 0001



REPLY TO  
ATTENTION OF

AMCAQ-B

8 May 1995

MEMORANDUM FOR Lieutenant General Johnnie E. Wilson, Deputy Chief of Staff for  
Logistics, Department of the Army, 500 Army Pentagon,  
Washington, DC 20310-5000

SUBJECT: DODIG Draft Audit Report on Administrative Lead Time at DoD Inventory Control  
Points (Project No. 3CD-0043.03)

1. Reference memorandum DALO-SMP dated 5 Apr 1995, SAB.
2. We acknowledge that the management of spare parts acquisition within the U.S. Army Materiel Command (AMC) is in need of improvement. We have an aggressive, high visibility program underway to reduce lead times for secondary items including both administrative lead time (ALT) and production lead time (PLT). This program was initiated prior to the release of the DODIG findings and is under my personal management.
3. There is some concern about the scope and methodology of the audit that needs clarification.
  - a. The sample size of Army contracts used in the audit was small and the data was not current (FY92 and FY93). We initiated a larger sampling of more recent contracts (FY94) and the results show significantly lower numbers for ALT at all AMC Inventory Control Points (ICPs). The average reduction was over 100 days of ALT.
  - b. Although we agree that lead times are too long, in some cases the AMC ICPs provided detailed rationale to the auditors about extenuating circumstances on some of the contracts reviewed. It appears that this information was not evaluated by the auditors and no adjustments were made to the statistical samplings. For example, one contract with an ALT of over 1000 days involved an investigation for potential fraud, required qualifying another source to produce the item and a resolicitation. This was not representative of a "normal" action.
  - c. These points indicate that the Army data used in the audit was not totally representative of current practices.
4. In response to the specific recommendations on page 19 of the draft report we offer the following comments.

## Department of the Army Comments

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AMCAQ-B

SUBJECT: DODIG Draft Audit Report on Administrative Lead Time at DoD Inventory Control Points (Project No 3CD-0043.03)

a. Recommendation 1 that the Under Secretary of Defense (Comptroller) initiate appropriate adjustment during the DoD Component budget review process to reflect reduced administrative lead-times: **NONCONCUR**. The auditors identified \$2B "savings" that could be put to better use by DoD if the audit recommendations were fully implemented. The methodology used to arrive at this number is flawed. Secondary items are purchased through a DoD revolving working capital fund, the Defense Business Operating Fund (DBOF). Any "savings" resulting from lead time reductions will be in the form of working capital authority and will not be recoverable from appropriated dollars. Instead, as lead times are reduced, there will be a one time bubble of items in the supply "pipeline". Under the rules of the DBOF, these items may then be "sold" or disposed of as long supply excess and whatever cash is generated would be used to lower prices or overhead rates for future purchases. However, these "savings" are very difficult to determine in advance and will occur over a number of years as the excess inventory is consumed.

b. Recommendation 2a(1) that Commanders of DoD ICPs establish goals for completion of segments of the administrative lead time award process: **CONCUR**. AMC has established a command-wide Process Action Team to develop recommendations on improving both ALT and PLT for secondary items. There are at least four separate tracking mechanisms within AMC ICPs that are being used to track items through the procurement process. The Commanding General has directed that the "best" system be identified and extended across all the ICPs as a standard tracking system.

c. Recommendation 2a(2) that the Commanders of DoD ICPs monitor ALT from the time of requirement notice to contract award: **NONCONCUR**. The report inaccurately discusses the Army method of tracking and stratifying inventory levels against ALT. The Army measures ALT from the time the approved procurement is generated until the contract is awarded. In the Army's Commodity Command Standard System (CCSS) the procurement is "initiated" the moment the requirement is reviewed and approved. The ALT start date is incorporated into the document number that is generated when building a Procurement Work Directive. The auditors have incorrectly identified the start point of the process. The DoD recommendation, if adopted, would overstate cycle time and result in inventory being procured above requirements.

d. Recommendation 2b that Commanders of DoD ICPs include ALT as an assessable unit within their internal management controls program: **CONCUR**. AMC will submit a Materiel Weakness on Lead Time Reduction. In addition, the Commanding General and I are monitoring lead time reduction efforts through a Process Action Team, a dedicated HQ AMC management team and quarterly reviews with our ICP Commanders.

e. Recommendation 2c to increase the use of automated contracts, where appropriate, to dramatically reduce ALT: **CONCUR**. As cited in the audit report, AMC has a number of electronic data transfer capabilities and electronic bulletin board systems. However, constraints



MAY 8 '95 15:20

PAGE 004

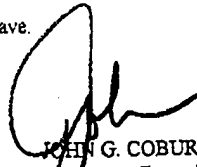
AMCAQ-B

SUBJECT: DODIG Draft Audit Report on Administrative Lead Time at DoD Inventory Control Points (Project No. 3CD-0043.03)

and restrictions imposed by DoD level activities involved in the development of common automated systems for materiel management and procurement automation have slowed the proliferation of existing capabilities to other ICPs

4. My points of contact are COL Keith Brower at (703) 274-8588 for overall cycle time process information and Mr. Gene Duncan at (703) 274-8262 for acquisition/procurement specific information.

5. AMC -- America's Arsenal for the Brave.



JOHN G. COBURN  
Lieutenant General, USA  
Deputy Commanding General

# Department of the Navy Comments



DEPARTMENT OF THE NAVY  
OFFICE OF THE ASSISTANT SECRETARY  
RESEARCH, DEVELOPMENT AND ACQUISITION  
1000 NAVY PENTAGON  
WASHINGTON DC 20350-1000

MAY 23 1995

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR  
GENERAL FOR AUDITING

Subj: DODIG AUDIT REPORT ON ADMINISTRATIVE LEAD TIME AT DOD  
INVENTORY CONTROL POINTS (PROJECT NO. 3CD-0043.03)

Ref: (a) DODIG memo of 10 March 1995  
(b) ASN(RD&A) memo of 14 December 1994  
(c) ASN(RD&A) memo of 23 February 1994

Encl: (1) DON Response to Draft Audit Report

I am responding to the draft audit report forwarded by reference (a) concerning the administrative lead time at DoD inventory control points.

The Department of the Navy response is provided at enclosure (1). We concur in principle with recommendation 1. However, as we have previously stated in our references (b) and (c) responses to your audit report # 95-053, the Navy does not agree with your computation of holding costs and safety level savings. We do concede that savings of \$5.2 million are reasonable and the Navy will continue to examine the issue of holding costs and safety level savings to identify any additional savings in the future.

The Navy concurs with recommendation 2. With regard to recommendation 2 c., the Navy's inventory control points will continue to streamline their acquisition processes and reduce administrative lead time by maximizing the use of electronic data interface solicitations and electronic commerce.

A handwritten signature in dark ink, appearing to read "W. C. BOWES".

W. C. BOWES  
Vice Admiral, U.S. Navy  
Principal Deputy

**DEPARTMENT OF THE NAVY RESPONSE**  
**TO**  
**DODIG DRAFT REPORT**  
**ON**  
**ADMINISTRATIVE LEAD TIME AT DOD INVENTORY CONTROL POINTS**  
**(PROJECT NO. 3CD-0043.03)**

**Recommendation 1:** We recommend that the Under Secretary of Defense (Comptroller) initiate appropriate adjustments during the DoD Component budget review process to reflect reduced administrative lead time.

**DON Position:** Concur in principle. We concur that an administrative lead time reduction will allow some savings. SPCC annual performance goals cite a 10 percent reduction to administrative lead time. This equates to 17 and 23 days administrative lead time reduction for repairables and consumables, respectively. Considering the eight to one ratio between administrative lead time and safety level and that most safety levels for repairables are to protect against repair stockout, this allows 2 and 3 days reduction in safety level to achieve the same readiness objective. The reduction in safety level equates to dollar savings of \$3.4 million for repairables and \$1.8 million for consumables, for a savings of \$5.2 million. The Navy will continue to examine the issue of holding costs and safety level savings to identify any additional savings in the future.

**Recommendation 2:** We recommend that the Commanders of the DoD inventory control points:

- a. Implement performance measures for the administrative lead time process that:
  - (1) Establish goals for completion of segments of the administrative lead time award process.
  - (2) Monitor administrative lead time from the time of requirement notice to contract award.
- b. Include administrative lead time as an assessable unit within their internal management control programs.
- c. Increase the use of automated contracts, when appropriate, to dramatically reduce administrative lead time.

**DON Position:** Concur.

Enclosure (1)

# Department of the Air Force Comments



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC

4 MAY 1995

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING OFFICE OF  
THE INSPECTOR GENERAL DEPARTMENT OF  
DEFENSE

SUBJECT: Draft Audit Report, "Administrative Lead Time at DoD Inventory Control Points",  
DoD (IG) Project No. 3CD-0043.02, dated March 10, 1995

This is in reply to your memorandum requesting the Assistant Secretary of the Air Force (Financial Management and Comptroller) provide Air Force comments on the subject report.

The Air Force concurs in general with the findings of this report; there are actions which can be taken to reduce actual administrative lead times. We have taken aggressive action to implement actions recommended within this report since December 1994, due to a number of previous directives from the Secretary of Defense and Under Secretary of Defense (L/MDM). Because of previous reductions, we especially have serious concerns about recommendation one. The DoD Comptroller has already reduced the FY96 Budget Estimate for several reasons including lead times. Your final report if not revised, could result in duplicate reductions to the FY96 President's Budget.

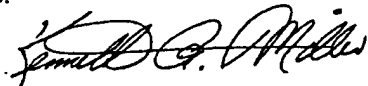
In addition, the draft report cites at the bottom of page 18, "The Joint Logistics Systems Center Materiel Management, Corporate Information Project" report dated June 25, 1993, as the source for a methodology to calculate the potential monetary benefits from reduced administrative lead time. That methodology is incorrect, and its use results in a gross overstatement of savings resulting from reduced administrative lead time. Request the erroneous savings calculations based on that methodology be removed from the report before it is issued as a final report.

The Air Force concurs with Recommendation 2a. An Integrated Process Team (IPT) on acquisition pipeline inventory reduction has been chartered at HQ AFMC to implement improvement actions in the acquisition processes that drive pipeline inventory. The variances of actual administrative lead time versus the standard are being addressed. The contracting community previously recognized the importance of monitoring interim milestones during the contracting process. Contracting will begin to collect the interim milestone data within the contracting processes by the fourth quarter of FY95 to measure actual process time from (1) PR receipt to solicitation issuance; (2) solicitation issuances to proposal receipt; and (3) proposal receipt to award. Contracting milestones will segment the contract administration lead time consistent with the process segments identified by the DoD (IG).

The Air Force concurs with Recommendation 2b. While Purchase Request (PR) preparation is tracked at most of our Air Logistics Centers (ALC), there are inconsistencies. As the HQ AFMC Integrated Process Team (IPT) reviews the current processes, it will submit recommendations for long range improvements including ALC and/or command metrics. The current milestone schedule indicates action plans will be ready for approval mid August 95. Contract administrative lead time is currently a component of the MAJCOM metrics. Implementation and accumulation of reportable contract administrative lead time data is estimated to be complete by the first quarter of FY96.

With reference to Recommendation 2c, the Air Force concurs, when appropriate. The samples cited in the audit apply to commercial, off-the-shelf, no testing required items. Acquisition of those type items is primarily the responsibility of DLA. Standard Systems Group (AFMC) is actively pursuing the development and implementation of Electronic Commerce/Electronic Data Interchange (EC/EDI) as well as Electronic Bulletin Boards (EBB). Using these tools, we anticipate improvements similar to those achieved in the samples cited in the audit.

We appreciate the opportunity to comment on the draft report. Our point of contact is Ms Karen Miller, AF/LGSP, extension 5-4895.

  
KENNETH C. MILLER, BRIG GEN, USAF  
DAF/AFMC  
Logistics

# Defense Logistics Agency Comments



DEFENSE LOGISTICS AGENCY  
HEADQUARTERS  
CAMERON STATION  
ALEXANDRIA, VIRGINIA 22304-6100



IN REPLY  
REFER TO

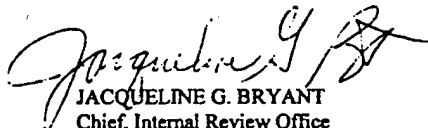
DDAI

25 APR 1995

MEMORANDUM FOR THE ASSISTANT INSPECTOR GENERAL FOR AUDITING,  
DEPARTMENT OF DEFENSE  
(ATTN: Ms. Macie J. Rubin)

SUBJECT: Draft DoD IG Audit Report, Administrative Lead Time at DoD Inventory Control  
Points, (Project No. 3CD-0043.03)

This is in response to your 10 March 1995 request.

  
JACQUELINE G. BRYANT  
Chief, Internal Review Office

cc:  
MMA

**TYPE OF REPORT:** AUDIT **DATE OF POSITION:**

**PURPOSE OF INPUT:** INITIAL POSITION

**AUDIT TITLE AND NO:** Administrative Lead Time at DoD Inventory Control Points  
Project No. 3CD-0043.03

**FINDING A: Administrative Lead Time at DoD Inventory Control Points.** Some DoD inventory control points were more efficient than other DoD inventory control points in awarding contracts for spare parts. This performance difference occurred because the efficient DoD inventory control points were:

- o using accurate administrative lead time measurement to monitor progress toward achieving goals,
- o establishing clear goals for each segment of the administrative lead time process to encompass all administrative lead time
- o increasing management oversight of administrative lead time,
- o including administrative lead time as an assessable unit in internal management control programs, and
- o increasing use of automated contracts.

As a result, administrative lead times at less efficient DoD inventory control points can be reduced by implementing process improvements and performance measures used by the more efficient DoD inventory control points. Those improvements, when implemented at all DoD inventory control points, will provide benefits of \$2 billion that could be put to better use.

**DLA COMMENTS:** In general, the audit evaluation of DLA activities was favorable. On page 10 the report stated, "DLA inventory control points (ICPs) were among the six most efficient DoD ICPs." The report recognized DLA efforts to manage administrative leadtime in accordance with DoD guidance. DLA is making further efforts to reduce lead times as reflected in our numerous Buy Response Vice Inventory (BRVI) initiatives. Our BRVI approaches are aimed at improving customer support while reducing operating costs, especially those associated with inventory investment. In addition, the DLA ICPs have been given lead time reduction goals as contained in their Activity Performance Plans. All these initiatives were reported and are being tracked in response to the numerous previous audits referenced in the report. Additional follow-on tracking under this most recent review would be counter-productive.

We recognize further improvement can be made. For example, when implemented, regulatory guidance resulting from the Federal Acquisition Streamlining Act (FASTA) will shorten administrative lead time (ALT). Additionally, ALT will be reduced as DLA expands the adoption of commercial practices including automated contracting capability. However, we see

## Defense Logistics Agency Comments

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no value added in reporting resulting savings within the framework of this audit. This would only duplicate information being provided through other reporting mechanisms, and reflected in the budget process.

While we are pleased that the audit identified positive steps DLA has taken to reduce ALT, we have concerns with the audit process and report, as expressed in our comments on Recommendation 1.

### INTERNAL MANAGEMENT CONTROL WEAKNESSES

- ☐ Nonconcur.
- ☒ Concur; however weakness is not considered material for DLA.
- ☐ Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

MONETARY BENEFITS: N/A

DLA COMMENTS:

ESTIMATED REALIZATION DATE:

AMOUNT REALIZED:

DATE BENEFITS REALIZED:

ACTION OFFICER: Robert Theiss, MMSLR, x46388, 13 Apr 95

REVIEW/APPROVAL: J. S. Rountree, Acting Deputy Executive Director, Supply  
Management, MMSD, x70510, 14 Apr 95

COORDINATION: Anthony E. Broadnax, DDAI, x49607, 18 Apr 95

DLA APPROVAL:

*George T. Babbitt*

24 APR 1995

GEORGE T. BABBITT  
Major General, USAF  
Principal Deputy Director



**TYPE OF REPORT:** AUDIT

**DATE OF POSITION:**

**PURPOSE OF INPUT:** INITIAL POSITION

**AUDIT TITLE AND NO:** Administrative Lead Time at DoD Inventory Control Points  
Project No. 3CD-0043.03

**RECOMMENDATION 1:** We recommend that the Undersecretary of Defense (Comptroller) initiate appropriate adjustments during the DoD Component budget review process to reflect reduced administrative leadtime.

**DLA RESPONSE:** NONCONCUR. Although this recommendation is addressed to the Undersecretary of Defense (Comptroller), we would like to comment on this issue. The materiel investment portion of the DLA budget is not based on the classical stratification of requirements and assets, but rather on a percent of sales replacement concept. Reducing leadtimes and consequently safety levels is one method for coping with the reduced replacement rates imposed by Congress. To impose further reductions in replacement rates amounts to a double offset in the budget for leadtime reductions.

**DISPOSITION:**

- ☐ Action is ongoing. Estimated Completion Date:  
☒ Action is considered complete.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES:**

- ☒ Nonconcur.  
☐ Concur; however weakness is not considered material.  
☐ Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

**MONETARY BENEFITS:** Undetermined

**DLA COMMENTS:** See general comments below.

**ESTIMATED REALIZATION DATE:** N/A

**AMOUNT REALIZED:** N/A

**DATE BENEFITS REALIZED:** N/A

**ACTION OFFICER:** Mike Pouy, MMSB, x47975, 13 Apr 95

**REVIEW/APPROVAL:** J. S. Rountree, Acting Deputy Executive Director, Supply  
Management, MMSD, x70510, 14 Apr 95

**COORDINATION:** Anthony E. Broadnax, DDAL, x49607, 18 Apr 95

*For DDAL, 26 Apr 95*

**DLA APPROVAL:**

*George T. Babbitt*

GEORGE T. BABBITT  
Major General, USAF  
Principal Deputy Director

1000

### GENERAL COMMENTS.

1. We question the validity of the sampling strategy. Our own statistics, for example, show DGSC's FY 94 Procurement Administrative Lead Time (PALT) to be only 129 days, 118 less than the sample mean in the study and not even close to the 90% confidence interval. We recognize that PALT is a subset of ALT but the remaining portions of ALT cannot account for a difference this large. Of greater concern are the excessively large confidence intervals, which amount to plus-or-minus 60% in some cases. Confidence intervals this large indicate a sample size much too small for the characteristics of the population, and should have caused the audit team to redesign the sampling scheme.
2. Lead time does not translate directly to inventory requirement. There is no such thing as lead time stock. The materiel issued during a lead time period is the procurement cycle stock bought a leadtime ago, and will be issued whether or not a buy is in progress. If an ALT is reduced by, say, 10 days, then the item manager can wait 10 days before starting the next buy. The buy quantity will be the same as before, the award will take place at the same time as before, and the receipt will take place at the same time as before. THERE IS NO DIRECT CHANGE TO THE ON-HAND INVENTORY. Taken to the extreme, an item with no leadtime will be ordered the very day it reaches zero balance. The inventory will range between zero and the order quantity. If a day of leadtime is introduced, the order will be placed with one day's stock left, and will be received the next day, when the on-hand has dropped to zero. Each successive day of leadtime added merely backs up the ordering day, but the order quantity, the receipt day and the on-hand balance at receipt all remain unchanged. The stock issued during the leadtime is the previous procurement cycle quantity.
3. The 1:8 ratio for computing safety level requirement reduction (page 3) is both outdated and misused. DLA ICPs have reduced safety levels dramatically since the 1989 study, and the ratio is no longer valid. DLA Hardware ICP average safety level in 1989 was 113 days, compared to only 65 days today. Also, the 1:8 ratio is an aggregate number for all items and all types of buys, and is based on a reduction in the total dollar-weighted leadtime. It cannot be applied separately to large and small contracts. Items with large contracts have longer leadtimes, shorter procurement cycles and higher annual demand values, all of which affect safety level computation. The ratios must be recomputed to reflect updated data and the type of contract used.
4. Computation of Monetary Benefits. Even though DLA's position is that the report requires no further action by DLA, and that the monetary benefits apply almost exclusively to the Services' ICPs, there are a number of serious errors in the computation of monetary benefits which require comment.
  - a. As noted above, leadtime reduction does not yield a one-for-one inventory reduction. Since the entire \$2 billion monetary benefit is based on this incorrect assumption, it is invalid. We note that the \$2 billion figure does not include (unless hidden) the 1:8 ratio of safety level reduction to leadtime reduction discussed on page 3 of the report.

b. The methodology used demand rates to compute savings, and should have used obligations. Furthermore, the report assumes constant rates for the entire 6-year period. The audit team should have referred to Component POM submissions for projected obligation rates.

c. Holding rate methodology used is valid for Economic Order Quantity (EOQ) computation only and is computed incorrectly here. This rate, even if computed correctly, cannot be used to compute direct savings. The obsolescence rate is not an actual cost, but a deterrent built into the EOQ to reduce the likelihood of overprocurement. At 12%, it is also grossly exaggerated. DLA's depot storage costs amount to less than one percent of the inventory value. The cost of capital portion of the holding rate, the applicability of which is questionable at best, is outdated by OMB Circular A-94.

## Defense Logistics Agency Comments

**TYPE OF REPORT:** AUDIT **DATE OF POSITION:**

**PURPOSE OF INPUT:** INITIAL POSITION

**AUDIT TITLE AND NO:** Administrative Lead Time at DoD Inventory Control Points  
Project No. 3CD-0043.03

**RECOMMENDATION 2.a(1):** We recommend the Commanders of the DoD inventory control points implement performance measures for the administrative lead time process that establish goals for completion of segments of the administrative lead time award process.

**DLA COMMENTS:** As the report indicates, DLA Inventory Control Points (ICPs) are not experiencing the problems leading to this recommendation. As stated on page 11 of the report, "[t]he DLA supply centers and ASO were the only DoD ICPs that measured administrative lead time (ALT) according to DoD Regulation 4140.1-R." As cited on page 12, "[o]f the four DLA ICPs, three included in our review were among the five most efficient DoD ICPs. The common element found at each of these commands was that goals were established for each segment of the ALT process." As DLA is already in compliance, we consider this action complete for DLA.

**DISPOSITION:**

- ☐ Action is ongoing. Estimated Completion Date:  
☒ Action is considered complete.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES:**

- ☐ Nonconcur.  
☒ Concur; however weakness is not considered material for DLA.  
☐ Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

**MONETARY BENEFITS:** N/A

**DLA COMMENTS:** N/A.

**ESTIMATED REALIZATION DATE:** N/A

**AMOUNT REALIZED:** N/A

**DATE BENEFITS REALIZED:** N/A

**ACTION OFFICER:** Robert Theiss, MMSLR, x46388, 13 Apr 95

**REVIEW/APPROVAL:** J. S. Rountree, Acting Deputy Executive Director, Supply Management, MMSD, x70510, 14 Apr 95

**COORDINATION:** Anthony E. Broadnax, DDAI, x49607, 18 Apr 95  
*Anthony E. Broadnax, DDAI, 18 Apr 95*

**DLA APPROVAL:**

*George T. Babbitt*  
GEORGE T. BABBITT  
Major General, USAF  
Principal Deputy Director

**TYPE OF REPORT:** AUDIT

**DATE OF POSITION:**

**PURPOSE OF INPUT:** INITIAL POSITION

**AUDIT TITLE AND NO:** Administrative Lead Time at DoD Inventory Control Points  
Project No. 3CD-0043.03

**RECOMMENDATION 2.a(2):** We recommend the Commanders of the DoD inventory control points implement performance measures for the administrative lead time process that monitor administrative lead time from the time of requirement notice to contract award.

**DLA COMMENTS:** As the report concludes, DLA ICPs are not experiencing the problems resulting in this recommendation. As cited on page 13, "[w]e found examples of effective management oversight that resulted in reduced ALT at ASO and at the DLA ICPs." For this reason, no further DLA action is required in response to this recommendation.

**DISPOSITION:**

- ☐ Action is ongoing. Estimated Completion Date:  
☒ Action is considered complete.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES:**

- ☐ Nonconcur.  
☒ Concur; however weakness is not considered material for DLA.  
☐ Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

**MONETARY BENEFITS:** N/A

**DLA COMMENTS:** N/A

**ESTIMATED REALIZATION DATE:** N/A

**AMOUNT REALIZED:** N/A

**DATE BENEFITS REALIZED:** N/A

**ACTION OFFICER:** Robert Theiss, MMSLR, x70510, 13 Apr 95

**REVIEW/APPROVAL:** J. S. Rountree, Acting Deputy Executive Director, Supply  
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**DLA APPROVAL:**

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Major General, USAF  
Principal Deputy Director

24 APR 1995

## Defense Logistics Agency Comments

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**TYPE OF REPORT:**      **AUDIT**                      **DATE OF POSITION:**

**PURPOSE OF INPUT:**      **INITIAL POSITION**

**AUDIT TITLE AND NO:**      Administrative Lead Time at DoD Inventory Control Points  
Project No. 3CD-0043.03

**RECOMMENDATION 2.b:** We recommend the Commanders of the DoD inventory control points include administrative lead time as an assessable unit within their internal management control programs.

**DLA COMMENTS:** As the report explains, DLA ICPs are not experiencing the problems contributing to this recommendation. As stated on page 14, "ASO and the DLA ICPs measured ALT according to DoD instructions and implemented internal controls over measurement of ALT. Goals were established, and management monitored each segment of the ALT process." The report continues, "ASO and the DLA ICPs included ALT as an assessable unit of their mandatory control reviews." For these reasons, no further DLA action is required in response to this recommendation, as the Agency is already in compliance.

**DISPOSITION:**

- ☐ Action is ongoing. Estimated Completion Date:
- ☒ Action is considered complete.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES:**

- ☐ Nonconcur.
- ☒ Concur; however weakness is not considered material for DLA.
- ☐ Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

**MONETARY BENEFITS:** N/A

**DLA COMMENTS:** N/A

**ESTIMATED REALIZATION DATE:** N/A

**AMOUNT REALIZED:** N/A

**DATE BENEFITS REALIZED:** N/A

**ACTION OFFICER:** Robert Theiss, MMSLR, x46388, 13 Apr 95

**REVIEW/APPROVAL:** J. S. Rountree, Acting Deputy Executive Director, Supply  
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24 APR 1995

## Defense Logistics Agency Comments

**TYPE OF REPORT:** AUDIT **DATE OF POSITION:** 1

**PURPOSE OF INPUT:** INITIAL POSITION

**AUDIT TITLE AND NO:** Administrative Lead Time at DoD Inventory Control Points  
Project No. 3CD-0043.03

**RECOMMENDATION 2.c:** We recommend the Commanders of the DoD inventory control points increase the use of automated contracts, when appropriate, to dramatically reduce administrative lead time.

**DLA COMMENTS:** DLA is already pursuing an aggressive automated contract program. As cited by page 15 of the report, "[t]he DLA ICPs...made substantial reduction in ALT by creating innovative programs to speed the contract award process by using electronic data transfers between DLA ICPs and vendors." For this reason, further actions in response to this recommendation are not required.

**DISPOSITION:**

- ☐ Action is ongoing. Estimated Completion Date:  
☒ Action is considered complete.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES:**

- ☐ Nonconcur.  
☒ Concur; however weakness is not considered material for DLA.  
☐ Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

**MONETARY BENEFITS:** N/A

**DLA COMMENTS:** N/A

**ESTIMATED REALIZATION DATE:** N/A

**AMOUNT REALIZED:** N/A

**DATE BENEFITS REALIZED:** N/A

**ACTION OFFICER:** Robert Theiss, MMSLR, x46388, 13 Apr 95

**REVIEW/APPROVAL:** J. S. Rountree, Acting Deputy Executive Director, Supply Management, MMSD, x70510, 14 Apr 95

**COORDINATION:** Anthony E. Broadnax, DDAI, x49607, 18 Apr 95  
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18 Apr 95



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